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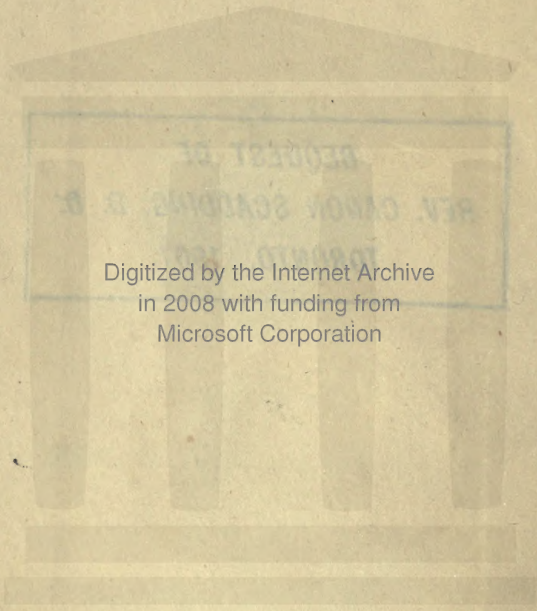

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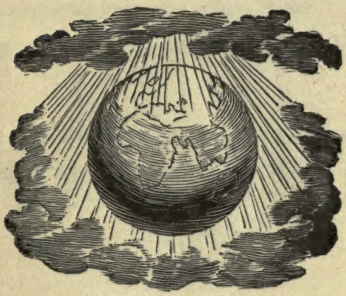
THE

CHRISTIAN NATURALIST,

BY THE

REV. EDWARD BUDGE, B. A.



DEI OMNIA PLENA.

3331D
1902

LAUNCESTON:
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SIMPKIN, MARSHALL AND CO., LONDON.

1838.

'How charming is Divine Philosophy!
Not harsh, and crabbed, as dull fools suppose,
But musical as is Apollo's lute,
And a perpetual feast of nectar'd sweets
Where no crude surfeit reigns.'—*Milton's Comus.*

'So reads he nature whom the lamp of truth
Illuminates, thy Lamp—mysterious Word.'—*Cowper.*

TO THE

REV. HENRY ADDINGTON SIMCOE, A.M.

This Volume,

WHICH OWES ITS ORIGIN TO THE

PENHEALE-PRESS,

IS, WITH MUCH CHRISTIAN RESPECT AND AFFECTION,

INSCRIBED BY

THE AUTHOR.

PREFACE.

It may be needful here to state, that a considerable portion of the following work has already been before the public, in a small monthly Periodical, entitled, 'Light from the West, or the Cornish Parochial Visitor,' which was commenced in January, 1832. During the latter part of this year, the first number of the Christian Naturalist appeared in that work. The favorable manner in which the series of papers under that head were received by its numerous readers, have now led to their re-publication. Being, however, now presented to a more general class, some pains have been taken by the Author to submit his observations to the public in the form that might be most useful and attractive; and with this view some alterations and corrections have been made, and many additions. A different arrangement has also been adopted. In agreement with the Calendar of Nature,

the work has been divided into twelve chapters or numbers, and for this purpose a union of such subjects as would admit of this connexion, was necessary. One of these, which forms the subject for July, under the title of 'The Cornish Tors,' has been written entirely for the present work. Those who are acquainted with the Publication, for which this series of papers was originally composed, will be fully aware that a rapid sketch of the most striking phenomena of 'the varied year,' was all that could be permitted or attempted in a Periodical where brevity and simplicity were indispensable. To have enlarged these observations to a much greater extent than has been now attempted, would have been inconsistent with the plan of the writer, which was to set forth the works of God as they display themselves upon a grand scale, and only so far as they may be made subservient to his word. Nothing more, therefore, is here attempted, than to unroll a few of the broader and more brilliant pages of the book of Nature, and to read them by the mingled light of science and of Revelation.

Launcells, August, 1838.

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THE

CHRISTIAN NATURALIST.

JANUARY.

THE SEASONS.

'These, as they change, Almighty Father, these,
Are but the varied God. The rolling year
Is full of thee.'

A SINGLE glance at any portion of the world around us is sufficient to discover that the Creator intended to awaken attention by an ever-changing variety of scenes. So many, however, and so diversified are the proofs thus afforded of his being and goodness throughout the whole calendar of the Seasons, that it would be no easy task for the Christian Naturalist to determine from what point he should begin his observations. But, happily, the succession of the Seasons, and the order of the months, obviate the difficulty. A path

opens before us which might almost seem to be that which the Deity himself prescribes. There can be but little doubt that the sun was placed in the heavens to mark our years by a complete revolution, and the moon to number and divide our months. Thus a law is proposed for the guidance of our thoughts and the regulation of our earthly affairs, at once simple and beautiful. To pursue this order seems therefore the appropriate business of the Christian Naturalist, who endeavours to watch the operations of the Divine hand as they variously manifest themselves, and to suggest those topics of reflection which may be made subservient to man's interest, with reference to an immortal state of being.

In entering upon the first month of the year we can hardly fail to direct our thoughts to that marvellous provision which the Providence of God has made for man in the very changes of the several Seasons. As month succeeds to month and year to year, we are apt, however, to become so familiar with this succession, as to lose sight of its necessity. And yet so necessary is this variety to the comfort of our present existence, that we should soon grow tired of one season however pleasant. It would be like always sailing over the

same smooth sea, or hearing the same sweet strain of music. It is right then to understand, as well as to admire, the nature of that economy by which the Creator has provided us with the means of this variety. Yonder sun, which enlightens us, might have shone in the heavens just as we now behold him: and have rose in the East, and set in the West daily, but this would not have produced the Seasons and their changes. Something more was necessary to give us spring and summer, autumn and winter; and this diversity has been effected in the simplest manner by the Divine hand. The sun's path through the heavens, instead of being always the same, is a varied one; he traverses in turn all the northern and southern signs of the Zodiac: or, to speak more in the language of science, he appears to do so by that peculiar direction or inclination which is given to the earth's axis, with respect to the line of its path or orbit.

Thus it is that seed-time and harvest, summer and winter, each appear at regular intervals; and every part of the world receives in turn those advantages which result from the change of seasons. Men, animals, and vegetation, all seem alike to share in the benefits of the change. Without it many parts of the

earth would be utterly uninhabitable; as for instance, those under the equinoctial line, as well as at the North and South Poles: and even our own island, whose genial climate is surpassed by none on the globe, would have been but a desolate region. It could have had only the heat of a March or October sun, which would have been insufficient to ripen corn, or any other of the valuable fruits of the earth: whereas, by the present plan of a benevolent Creator, it produces in succession almost every article of comfort—nay, even of luxury—and is enabled to rise superior in many respects to the inhabitants of warmer and more fertile climates.

To the mere observer of nature, this view of the beneficial effects arising from the Seasons may well inspire wonder, and serve to reconcile him to the chill and dreary months of winter. But to the Christian Naturalist it will afford not only wonder and contentment, but gratitude to God, that he thus keeps up as it were in every change of the year, "the memory of his great goodness," and makes every season the instrument of conveying fresh blessings to his unworthy creature man.

Another view in which the Seasons present themselves to our notice, and one no less important, is that of

gentle and friendly monitors. Advantageous as they undoubtedly are, there is a melancholy pleasure in beholding some of them, and in taking leave of others. The balmy breezes of spring, which tell of the long expected revival of nature, are but of short duration, and summer prodigal of heat, and teeming with life, soon gives place to autumn; whilst autumn itself, though rich with its golden harvests, gradually falls into "the sere and yellow leaf," which marks its decline: and then, rapidly rushing on upon his steps, comes winter—stern, icy, winter—with his mantle of snow, and his breath of mists and storms. Now these changes, well known and expected as they are, can never be attentively observed, without in some degree, saddening the gay, and solemnizing the sober-minded. It is not merely that they remind us of mortality; they teach rather a lesson of immortality. For, as it has been well remarked, if we look nature through,—

—— 'Tis revolution all,—
All change, no death!'
—— 'All to reflourish fades;
As in a wheel, all sinks to reascend:
Emblem of man who passes, not expires.'

Where the heart then is truly affected by religious

feelings, the right observation of the Seasons must produce a deep impression; for each of these vicissitudes to which the natural world is subject, are to the wise like the voice of the great Lord of Nature addressing Adam in the garden of Eden, and saying, "Adam, where art thou?" Each of them seems to call man to the arduous duty of self-examination; to remind him who and what he is; and to question him as to what are his hopes, and his pursuits. They forcibly awaken him to his real situation; for he sees himself to be the inhabitant of a world ever-changing, and feels that human life also has its changes,—its autumn and its winter,—as well as its spring and its summer. Whether in the bloom of youth, or of more advanced age, he beholds in the varying aspect of nature, a picture of that change which is inevitable to all mortal conditions; and is sensible that, like the dying year, he also must "fade as a leaf," and be swept away into a land of forgetfulness. How happy is it then for the man who thinks and feels thus, if the spirit of the departing year whispers peace to his conscience!—if, whilst he beholds the fleeting scene which earth exhibits and all its glories, and is conscious that these are emblems of his own mortal changes, he is also sensible that these

only resemble the great vicissitudes of nature, which are so regulated by their Divine Author as to become pregnant with blessings at each revolution!

In this feeling of decay and vicissitude, there is assuredly much to soothe as well as solemnize the Christian mind. The character of the opening month of the year, considered as a link between Winter and Spring, is one which supplies a striking analogy with religious experience. The observer of nature is unable to mark any peculiar difference between this and the foregoing month. As yet no advances seem to be made towards a better season. The woods still wear the same hoary aspect of desolation. The sky still lowers with the same dark and oppressive load of vapours; and except that here and there may be seen a snow-drop rearing its lovely and pensive head amidst the frozen clods, we might imagine that a death-like palsy had seized upon all the vegetable world. But although there is thus an apparent stagnation, the machine is not stopped in its course. Silently, but surely, and majestically, it is still moving forwards according to the plan appointed by its Creator. No sooner has the sun passed the Tropic of Capricorn than he begins to approach us a little

nearer every day. And although with our dull eyes we see not the progress, so gradual is it; although we mark not the precise period when he begins to return, yet—

> 'That breathing moment on the bridge where Time
> Of light and darkness, forms an arch sublime,'

has been passed, and we may thence look forwards with increasing hope to the balmy breezes and brighter days of the returning spring.

Thus also is it with the faith even of the true believer. Ofttimes does it wear an aspect not unlike that of a January month; a sort of intermediate state between light and darkness; between joy and despair. If, indeed, the great turning point of spiritual life has been past, still this world presents not unfrequently the face of a wintry scene. Its cloudy and dark days are many. Trials and disappointments of various kinds, for the most part, still keep its hopes, like the forest, bare and unpromising; and its patience only rises like a flower that smiles upon a surface of snow. Thus like the patriarchs and prophets of old, the Christian has to wait long for the salvation of his Lord; and if he rejoices at beholding it, it often rises

to his view as through a mist, in which he sees but darkly the face of the Sun of Righteousness. His portion, however, it is to know that "light is sown for the righteous;" that God is faithful to his promise; and that every day brings nearer the coming of that happy season, when all that the prophets and saints of old have predicted shall be fully realized. Hence the state of the Christian is one of anxious expectancy, in which he has always to be standing as it were upon this connecting point between two worlds; watching with eager eye that chariot of nature, which as it rolls silently onwards, carries along with it the chariot of providence and of grace; has the eye of a Spirit in all its wheels; and is hasting at every revolution to that bourn, where the voice of the Divine power which regulates the whole machine shall at length stay its progress, and utter the decree, "Sing O ye heavens; for the Lord hath done it; shout, ye lower parts of the earth; break forth into singing, ye mountains, O forest, and every tree therein, for the Lord hath redeemed Jacob, and glorified himself in Israel." (Isai. xliv. 23.)

Such are the reflections which every true Christian ought to cherish. The darkest season should not quench

his faith and dependance upon that God in whose hands are all his times, as well as all his ways. His privilege it is to take the blessing of Jacob to himself; "The Eternal God is thy refuge, and underneath thee are the everlasting arms." The divine promises are his constant support under all terrestrial changes; for he remembers who it is that has said to his people, "Even to your old age I am he, and even to hoar hairs I will carry you." "Lift up your eyes to the heavens, and look upon the earth beneath, for the heavens shall vanish away like smoke, and the earth shall wax old like a garment, and they that dwell therein shall die in like manner, but my salvation shall be for ever, and my righteousness shall not be abolished." (Isai. li. 6.) Thus it is, that on the assurance of God's own word, the Christian watches the eventful changes of his mortal history, whatever they may be, with far more pleasure and gratitude than the naturalist experiences in beholding the charming variety of the Seasons; for it is his peculiar privilege to believe that no change can essentially harm him, that if his Spring, his Summer, and his Autumn are already fled, and the long Winter of the grave is about to descend upon him, still he is only hastening to a land where his sun shall no more go

down; where his hopes shall no more be doomed to wither, or to shed their blighted leaves; but where they shall continue in immortal verdure, to bloom for ever like that "Tree of Life which is in the midst of the Paradise of God."

FEBRUARY.

THE STARRY HEAVENS.

"By his Spirit he hath garnished the heavens."—Job xxvi. 13.

WHAT a spectacle of grandeur, glory, and mystery is presented to the observer of the heavens on a clear winter's night! Always splendid and sublime as this sight is, the frosty atmosphere causes every star to sparkle with even brighter lustre than usual; while the intense darkness which now pervades the firmament in the absence of the moon, gives a brilliancy to the whole scene greater than is perceived at any other

season. In the East glows the sign of the Zodiac, termed by Astronomers the Lion. The West is enlivened by the presence of Venus, the most splendid of the planets, while higher up in the heavens, and almost over our heads, glitter the lovely groups of the Pleiades and Hyades, forming part of the sign of the Bull. But the most striking part of the hemisphere is the South, where Orion, with his glorious band of diamond-like orbs, blazes forth, the most brilliant constellation of the heavens! Surrounded also as this constellation is with several others of great splendor, the beholder may now stand lost in admiration at the most magnificent view which this part of the starry firmament affords, especially when he is told that it is visible to all the habitable world!*

In looking round upon this gorgeous spectacle, we cannot wonder that the Almighty himself should have challenged the attention of man to it as one of the noblest exhibitions of his power and greatness. "Canst thou bind the sweet influences of Pleiades, or loose the bands of Orion? Canst thou bring forth

* The constellation of Orion is for the most part included within the limits of the Zodiac; hence it must be visible in all, except in very high northern latitudes.

Mazzaroth in his season? or canst thou guide Arcturus with his sons? Knowest thou the ordinances of heaven? canst thou set the dominion thereof in the earth?"* Job xxxviii. 31—33. Who can help being amazed when he casts his eyes again over yonder vast expanse which almost appears, to use Milton's expression, 'powdered with stars;' more especially when he is informed by the discoveries of the telescope, that that luminous Zone in the heavens, called the 'Milky Way,' is a vast assemblage of stars, too small, or too distant, to be visible to the naked eye! The number of the heavenly bodies appears at first sight to confound calculation; and though science has numbered and arranged those which are visible, yet how is the imagination even of the wisest lost and bewildered

* The expressions used here, refer to the particular seasons of the year, when the sun rises about the same time as these signs. The 'Bands of Orion,' are descriptive of Winter, as the 'Sweet influences of Pleiades' are of Spring; the latter of these signs is better known by the name of the 'Seven Stars,' and Orion is easily observed by the three remarkable stars usually termed 'Orion's Belt:' by the Arabians, 'Jacob's Staff.' Arcturus, perhaps, ought to have been rendered 'the Great Northern Sign,' *i. e.* the 'Great Bear,'commonly called 'Charles's Wain,' and sometimes 'the Plough.' Mazzaroth, according to Chrysostom, means the twelve signs of the Zodiac, and our marginal version adopts this explanation.

at the thought, that each of these sparkling points to which we give the name of fixed stars, are in reality suns, glorious, vast, and, no doubt, beneficial as our own.

'It is one of the wonders of creation that any phenomena of bodies at such an immense distance from us should be perceptible to human sight; but it has clearly been a part of the Divine Maker's plan, that although they do not act physically upon us, they should be so far objects of our consciousness, as to expand our ideas of the vastness of the universe, and of the stupendous extent and operations of Omnipotence. By them we are enabled to ascertain that existing space expands around and beyond us for millions and millions of our earthly miles; and that his creations accompany and abound in all this marvellous extent, which displaying no boundary, no terminating ends, may be justly called infinite. It is an ocular reality, which gives us a sensible idea of actual infinitude. These lofty mansions of being also indicate to us that they have the same Creator as ourselves, and are but so many other magnificent scenes of his sovereignty and care.' * When we

* Sharon Turner's Sacred History of the World, Vol. 1. p. 41.

stretch the mind to such contemplations as these (and surely there is no rational being who has not thought on this subject at some time or other,) we may well be filled with astonishment at the power of that Divine Word by whom these worlds were made: who "telleth the stars by number;" who calleth them all by their names, and who marshals their shining hosts with the same ease as a skilful general directs the movements of a mighty army.

The 19th Psalm is an evidence of what "the man after God's own heart" could think and feel on such a subject; and when he observes, that "they have no speech, nor language, and yet their voice is heard," he utters a paradox as beautiful as it is descriptive of the effect which the Starry Heavens have in all ages produced upon mankind. The very circumstance that men have in many countries adored the sun, and the moon, and the stars; and that this was the earliest species of idolatry, is a proof of the admiration which

—As to the number of the fixed stars, it may be observed that modern Astronomers have discerned, by the aid of the telescope, a far greater number than are visible to the naked eye. Upwards of 75,000 stars have been so observed, and their positions determined, within a 24th part of a Zone, extending 15 degrees on each side of the equator.

these attracted, though it serves also to shew the lamentable proneness of human nature to lapse into error and guilty superstition, and to pervert to sinful purposes even those things which most clearly display the eternal power and Godhead of the Creator. The same may be said of that depraved fancy of the Greeks and Romans, which imagined many of their favorite heroes and kings to be transformed into stars and constellations. But, surely, we are hardly less guilty if we neglect these heavenly luminaries, which might, if rightly studied, shed much light upon our souls, and benefit us even far more than they can do by the rays with which they enliven and adorn the night. They were created, as the book of Genesis tells us, among other purposes, for that of being signs; signs, not indeed of earthly events, as our superstitious forefathers supposed, but rather of the Creator's boundless power and skill, who has placed them where they are to raise our thoughts to Him as the "Father of lights, from whom cometh down every good and perfect gift." Hence, as the Psalmist observes, "The heavens *declare*," (or, as the original implies,) "the heavens are distinctly telling,"* *i. e.* in every star, the glory of

* This is the exact meaning of the original, as the words printed in italics in the ordinary version shew.

God. They are the most evident signs and tokens to all of his glory as a Creator; of his Majesty as a Sovereign; of his Power as a Preserver. For what but Omnipotence could have established the laws by which so many burning suns and ponderous worlds are prevented from rushing against each other, and rendering the universe a scene of ruin and conflagration, like that which it shall really become at the last great day, when the stars of heaven shall cast themselves to the earth, and the heavens shall be rolled together as a scroll? (Rev. vi. 13.)

Science and observation have led, even some of the most distinguished of modern astronomers, to believe that many of these heavenly bodies are undergoing changes as great as that which overtook our globe at the time of the universal deluge, and which shall again overtake it at that "day of doom," when "The heavens being on fire shall be dissolved,and the earth, and all the works that are therein, shall be burned up." Several stars have been observed in the heavens from time to time, whose light has at first surpassed the planets, and been visible even at noon day; and these after a time have gradually become more and more dim, till at length their light has totally expired; from whence we may reasonably con-

clude with La Place, that they have been enveloped in a conflagration, like that which takes place on earth when bodies are set on fire, and then gradually extinguished.

In looking forward to that tremendous period, so clearly foretold in the book of God, we see the subserviency of all the purposes of the Almighty to his moral glory. It is the connexion of yonder shining worlds with the destiny of immortal beings, that gives them an interest far higher than the mere astronomer can entertain for them, who gazes at them with his telescope, and computes their motions with the greatest accuracy. The Christian's privilege is to see, that

'Eternity is written in the skies!'

and that the most profitable lesson he can read there, is the value of that soul which must live in happiness or misery,

'When like a taper all these suns expire!'

How forcibly then does the Poet of the 'Night Thoughts' exclaim,—

'Know'st thou the value of a soul immortal?
Behold this midnight glory: worlds on worlds!
Amazing pomp! redouble this amaze;
Ten thousand add, and twice ten thousand more;
Then weigh the whole: one soul outweighs them all!'

"As one star differeth from another star in glory, so is the resurrection of the dead." This is St. Paul's inference from the scene now before us: and a high consolation it is if we have a well grounded hope, that we shall shine even as a star of the fifth or sixth magnitude in the kingdom of our Father! Our blessed Lord dignifies this subject, and gives it the highest practical bearing, when he observes, that at the day of his second coming, "The righteous shall shine as the sun in the kingdom of their Father." And the prophet Daniel, referring to the same momentous period, declares, "That they who are wise shall shine as the brightness of the firmament; and they that turn many to righteousness as the stars for ever and ever," xii. 3. Wisdom for ourselves and others; a zeal that leads us to promote the glory of God and the good of our fellow mortals; as well as a moral and spiritual fitness for heaven; these seem to be qualities essential to the lowest degree of heavenly exaltation. Without these even the soul of a Newton, would but grovel in the dust, though it might be able to reach the loftiest flight of geometrical knowledge, and to measure and weigh the shining orbs above us. Religion, after all that may be said, is the sublimest science, and science

without religion is only an ignis fatuus, which will lead its followers into a bog, whilst they are attempting to grasp it. It has been well observed, that

'An undevout astronomer is mad!'

and, happily, the case of Sir Isaac Newton may be cited as a proof that the profoundest views of Nature do not necessarily deprive a man of the grace of true humility. 'I know not,' said that great man a short time before his death, 'what I may appear to the world, but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble, or a prettier shell than ordinary, whilst the vast ocean of truth lay undiscovered before me.' How finely do the views of such a man serve to humble as well as to exalt our nature, whilst we gaze for a moment at that splendid canopy of sparkling lights above us! And how beautifully does such a sentiment accord with that which the inspired Psalmist utters as he looks upwards upon a similar scene, and exclaims, "When I consider, thy heavens, the work of thy fingers, the moon and the stars which thou hast ordained, Lord, what is man that thou art mindful of him, and the son of man that thou visitest him!"

A feeling of this nature, is the best preparation for the right reception of the humbling, yet ennobling truths of the gospel. Until we feel our own littleness, we shall not seek after true greatness. We must first be sensible of our own ignorance and darkness, before we can sincerely desire or discern the presence of that omnific Word, which caused the light to shine out of darkness, and which still "Shines into the hearts of men to give them the knowledge of the glory of God in the face of Jesus Christ." Bright and glorious as are the luminaries which now shine above us, and cheer the gloom of a wintry night, they will shine upon a fallen world in vain, if they do not remind it of that Saviour who is, "The Day Spring from on high;"—"The Bright and Morning Star;"—"The Son of Righteousness, with healing under his wings." "He is the true Light that lighteth every man that cometh into the world,"—

'Nature's immortal, immaterial Sun.'

Enlightened and guided by his word of truth, we are enabled to direct our way with more comfort and safety through the wilderness of time, than the ancient mariner

could steer through the ocean, or the Arab through his sandy desarts, by the aid of the stars. And the end of our mortal pilgrimage if thus pursued, will be an inheritance among the saints in light; a mansion of glory above; from whence we shall be able to look down upon those shining worlds that now attract our attention upwards, and behold them, perhaps, but as the glittering gems that sparkle on the footstool of the Eternal God, or as the gloriously-bespangled curtain of that heavenly temple, within which sits enthroned the uncreated Majesty of Him "who only hath immortality, dwelling in the light which no man can approach unto, to whom be honour and power everlasting, Amen."

MARCH.

SEED-TIME.

"Doth not the husbandman plow all the day and openeth and breaketh the clods of his ground, that he may sow? When he hath made it plain will he not spread abroad the vetches, and sow cummin, and cast in wheat by measure, and the appointed barley and rye in their place? God will instruct him to discretion, even his God will teach him," *Isaiah* xxviii. 23—26. —*Cranmer's Bible, Ed.* 1541.

March may justly be called the seed month. The Sower now goes forth, and anxiously commits his precious treasure to the ground, in the full assurance that the vegetative powers of nature will reward him for his labour thirty, sixty, or a hundred fold. The operation of sowing is indeed simple and common; but does the husbandman ever stop to consider the inexplicable change his seed must undergo before his expectations can be realized? A moment's reflection will be sufficient to shew that the vegetation of seeds is one of nature's wonders, or rather of nature's God: for, as an old writer observes, 'nature is nothing less

than the order of the divine works.' Let us imagine, if we can, a man who had never seen this order exemplified in this particular instance, and he would be just as ready to disbelieve that plants and trees could spring from seed cast into the earth, as we are to calculate upon the certainty of the fact. What resemblance is there indeed, between the future plant, and the seed from which it springs? How little could mere reason, without experience, venture to predict the result that follows from a few handfuls of grain scattered over the soil! What if we adopt the supposition of some Naturalists, and imagine that each seed contains within it a perfect image of the future plant?* What if it should be true, that the acorn is only the gigantic oak in miniature? How does this lessen the difficulty of understanding this natural miracle; and why may we not as well believe, with mankind in general, that the seed is only a seed,—mere rudiment or principle, which acquires by degrees all the properties and forms which it afterwards becomes

* Most seeds, says Ray, have in them a seminal plant perfectly formed, as the young in the womb of animals; the elegant complication thereof in some species, is a very pleasant and admirable spectacle.—*Wisdom of God, p.* 122.

possessed of. After all that might be said or written on this subject, St. Paul's conclusion is the best and wisest, "God giveth it a body as it hath pleased him, and to every seed his own body." Interesting as it might be, to understand something further of this mystery of the natural world, it is of more importance to remark the beneficial consequences of this operation, and to be thankful to that providential wisdom which so orders it, that when a man has cast his seed into the ground, "it springeth up and groweth night and day, he knoweth not how."

Another fact, which ought equally to engage our feelings of devotional wonder at the present season, is the adaptation of the climate and the soil to the seed which is now deposited in the bosom of its mother earth. In the temperate Zone many circumstances concur together for this purpose; as for instance, the increase of temperature, the drying winds which usually prevail in the month of March, and which are so necessary after the relaxing effects of rain and frost, as well as that moderate degree of heat and moisture which are so essential to germination. Either of these circumstances, being deficient in any considerable

degree, would, it is evident, be highly injurious to the agricultural labours of this season.

We should also be led at this time to observe, not without grateful emotions, how well every climate and soil is suited to answer the design of its good Creator. In this kingdom, for example, every variety of soil may be found which characterizes the whole globe; and we find likewise that each is well adapted, by one circumstance or another, to yield an ample return for the care bestowed upon its cultivation.

This observation may here be fitly illustrated by an example which has immediately fallen under the writer's observation. Throughout the whole extent of the lands forming the Northern angle of this county, and flanking the sea from the parish of Morwenstow to that of St. Gennys, and for the distance of at least twelve miles towards Devonshire, the soil is a stiff yellow clay, resting upon a stratum of soft Greywacke. Lime, which is so necessary an ingredient in the cultivation of corn, is no where to be met with, throughout this district. But what the land itself does not supply, is afforded in the most liberal manner by the sea: On the shores of the North coast of

Cornwall, and particularly at Bude Haven, there is a vast and constant accumulation of fine sand, containing a considerable proportion of lime, which is the result of comminuted fragments of shells, which are mixed with the siliceous matter of those rocks, which probably form the basin of this part of the ocean, whose violence here beneficially exerts itself in grinding down the subjacent strata for the service of man. This sand precisely answers the use of the farmer throughout the district referred to, not only by supplying that ingredient which is most deficient in the soil, as a manure, but serving to loosen its otherwise too close and adhesive quality. But for this arrangement of Providence, a large portion of those lands which are now sufficiently productive must have been left wholly uncultivated, and would have been little better than mere sheep-walks. A similar wise, and merciful adaptation, there can be little doubt, prevails in other parts of this island, so as to remedy what defects may exist in the soil, (according to that wondrous principle of compensation which runs through all the works of God) by placing the evil and its antidote near together.

But amongst all the various and striking provisions which have been made for the convenience of man by

a bountiful Creator, none perhaps is more wonderful than the care which has been taken to preserve the vital principle in seeds. It is well known that every plant must at length degenerate and perish if its mode of propagation were confined to that of cuttings and suckers, not to mention that what are called annuals and herbaceous plants, as the different varieties of corn, for instance, could never have been successfully cultivated by such means. We have only however to revert to the history of the deluge, to see how a world could be again replenished and restored through the instrumentality of those seeds, which were doubtless imbedded in the soil when that catastrophe came upon it; for it is hardly possible to imagine that any thing of its previous vegetation could have remained amidst the violent convulsions and wide-spreading desolations which attended such an event. And yet we find that within the short space of seven days from the first drying up of the earth, the dove was enabled to return to the Ark with an olive leaf. Whether this was the production of a seedling,* or whether it was the new sprout

* Most probably this was the fact, for there seems little reason to believe that any plants of the olive tribe could have retained their vitality during the long submersion they must have

of a plant which had escaped the general destruction, upon some of the high mountains of Armenia; certain it is that within about the space of two months from the first drying of the earth, it was again overspread with a fresh vegetation; at least there was enough to maintain the various races of the berbivorous animals that had been preserved with Noah in the Ark. Here, then, we have a marvellous instance of that vitality of the seeds of the earth which was so important for the renovation of the face of nature, and the support of its children. But however striking this fact may appear, it is scarcely more wonderful than others which are of almost daily occurrence. Ground which has not been disturbed for some hundred of years on being ploughed or turned-up for a considerable depth, has frequently

suffered, not to take into the account that the whole surface of the globe seems then to have been torn up either by some disruptions from within, or by the force of the diluvial currents from without. If it be asked how in seven days a leaf could have been produced from the seed of an olive, the answer is obvious. Some extraordinary energy was imparted to vegetation at this period, or its surface could not so soon have afforded food for the animal tribes. Two things, however, must be taken into consideration; a tropical climate, with perhaps a higher temperature than at present, and a soil saturated with moisture.

surprised the cultivator by the appearance of plants which he never sowed, and often, which were then unknown to the country. This has arisen from ancient seeds becoming deeply covered, and there remaining inert, but yet retaining the principle of life. This principle has been ascertained to be capable of existing in this latent state for above two thousand years unextinguished, and springing again into active vegetation as soon as planted in a congenial soil. It even remains unimpaired in blighted corn, and will grow from this as vigorously as from the perfect seed.*

The practical use then to be made of such discoveries, is to learn another lesson of thankfulness and confidence in God. We have only to watch how much of the operations of vegetation the Creator still keeps, as it were, in his own hand, to have a forcible commen-

* At the Royal Institution in 1830, Mr. Houlton, produced a bulbous root, which had been discovered in the hand of an Egyptian Mummy, where it had remained about 2000 years. On exposure to the atmosphere it germinated, and when planted in earth, it grew with great rapidity. In boring for water, earth has been brought from a depth of 360 feet; and though carefully covered with a hand-glass, has been in a short time covered with vegetation. Sir T. Banks, raised in a hot-house, from 80 blighted grains of wheat, 72 healthy plants of wheat. —*See S. Turner's Sacred History of the World, Vol. 1. p. 208.*

tary upon that petition, "Give us this day our daily bread." Surely that man who does not draw near to God, whilst engaged in those operations, which especially require his blessing, and which cannot fail to remind him how many things must work together for his good if indeed he obtains the end he seeks for, is more ungrateful and inexcuseable than even the heathen. They (to use the words of the pious Flavel) 'when they went to plough in the morning, laid one hand upon the plough to speak their own part to be painfulness, and held up the other hand to Ceres, the supposed Goddess of Corn, to shew that their expectation of plenty was from their supposed deity.'

But if in natural operations, we ought continually to remember who it is that giveth the increase, in spiritual things our duty is not less plain and striking. The success of the Gospel is compared by Christ to a grain of mustard-seed, "which is the least of all seeds; but when it is grown, it is the greatest among herbs, so that the birds of the air come and lodge in the branches thereof." And the Gospel is still "the same incorruptible seed which liveth and abideth for ever." Why then should we ever doubt or mistrust its power to increase and propagate its Divine doctrines when, and where,

and in what manner its Divine Author pleases? Hitherto neither earth nor hell have been sufficient to stop the growth of these immortal principles of truth and holiness which have been watered with the blood of Christ, his Apostles, and a noble army of martyrs. Assuredly their successors ought to thank God and take courage. However adverse the circumstances may be in which they are placed as men, or as ministers, they have to bear in mind that it is God's prerogative alone "to multiply the seed sown, and to increase the fruits of righteousness."

To the Christian Naturalist, many circumstances serve to point out the analogy between the spiritual and temporal Seed-time, considered with reference to the hoped-for result. When the sower goes out to sow his seed, as he is described doing in the parable of our Lord, it is observable that only the fourth part of what he sows, falls upon good ground. The other three parts fall by the way-side, upon stony ground, or in the midst of thorns. It may not be the case literally that any agriculturist is foolish enough to sow his seed upon such places, where he knows that no fruit can possibly arise. Our Lord, therefore, only describes him as doing this, because it is evident that for the far

larger portion of what he sows, the results are the same to him, as if he had scattered his seed upon the high-road, upon the barren rock, or in the midst of a furze-brake.

To borrow an illustration from the Quarterly Journal of Agriculture, 'It is calculated that only one third of the seed-corn sown on the best land grows, the other two thirds are destroyed. The quantity of seed sown in Great Britain and Ireland annually amounts to seven millions of quarters. Two thirds are rendered unproductive by some agency which has hitherto been uncontrolled. Thus there is annually wasted a quantity which would support more than a million of human beings.' But is it, we may ask in the language of a popular preacher of the day, strictly correct to say that all this is wasted? Are human beings the sum total of God's creation here below, and are there no other pensioners on God's bounty? Who then has made and who supplies the ravens, the sparrows, and the other multitudinous tribes of busy life? All are God's creatures, and our heavenly Father feedeth all. He feedeth them by man's instrumentality, rendering the necessities of man, instrumental to the supplies of the inferior creatures; and then turning his all-working

hand, he renders the inferior creatures so supplied, subservient to the necessities and accommodation of mankind. The agriculturist sows for the harvest, this is his one design; but in so doing, he is overruled of God to accomplish a number of collateral designs. Under the secret control of the beneficent design of the Creator, the farmer sows for the raven, for the sparrow, for the fly, for the slug; he cannot help himself. If, by a parsimonious sowing, he should attempt to defeat the benevolent designs of God, he would defeat his own design as regarded the harvest; and, on the contrary, if by a liberal hand in sowing, he would secure his own object in a plentiful harvest he cannot but choose to accomplish, passively and undesignedly, the bountiful designs and objects of the Creator of all. It is delightful to consider how even the very covetousness of man is made subservient to the bounty of God; how the sower is forced by his own interest, to be lavish, to be profuse. Man must eat; in order to eat, he must reap; in order to reap, he must sow; in order to reap plentifully, he must sow plentifully; for as the Journal of Agriculture observes, two thirds of his seed are destroyed by an agency hitherto uncontrolled. There is a noble overflowing large-

ness in the works of God. What man calls *waste* abounds on every side. For example, amongst the millions of blossoms which in the spring-season emit their fragrant odours in the fields, and gardens, and orchards, how few will bear food for the use of man? But will they all therefore be wasted? Will they turn to no other use? Yes, even the very blight which ruins them for man's use, does itself produce unnumbered myriads of the creatures of God, who feed, and fatten, and enjoy their fleeting existence.'

But is it not also true that there is just as little of waste in the labours of him who sows spiritually? If the farmer who sows so much that is unproductive to himself, has but little reason to complain, still less should those repine who have to scatter much of the seed of the word of God upon places where it brings forth no fruit. The argument is susceptible of application upon the broadest as well as the most narrow scale. It applies itself to the labours of Christian Missionaries generally, and not less to the National Church of this country. It may be that a large portion of its Ministers are enabled to see as little fruit from the gospel-seed which they scatter among their people from time to time, as do those zealous labourers who

go forth to cast their seed upon the stony wilds of heathen lands. But what of this? They have no more reason to desist from their holy enterprise, than has the farmer to abstain from sowing. Ill, therefore, would it become the Protestantism of this land to withdraw from the scene of its labours, even in such a country as Ireland. To use the means of conversion is man's proper work; to command success is God's. Nature teaches us thus much at the present season; and the wisest of kings gives us a precept worthy of his wisdom, when he observes, "Cast thy bread upon the waters: for thou shalt find it after many days. In the morning sow thy seed, and in the evening withhold not thine hand: for thou knowest not whether shall prosper, either this or that, or whether they both shall be alike good." (Eccles. xi.)

The Divine Being himself anticipates the short-sighted objections of those who measure their duty by their success, when he declares, "As the rain cometh down, and the snow from heaven, and returneth not thither, but watereth the earth, and maketh it bring forth and bud, that it may give seed to the sower and bread to the eater, so shall my word be which goeth forth out of my mouth, it shall not return unto me

void, but it shall accomplish that which I please, and it shall prosper in the thing whereto I sent it." (Isai. lv. 10.) Rain and snow, as experience proves, are most uncertain in the time of their coming, but never fail to come at last, and to confer the benefits intended by their Creator. And so also the gracious influences of the Spirit of God, of which these elements are figurative, are under the guidance of that same word which assures us, "That neither is he that planteth any thing, neither he that watereth; but God that giveth the increase." To every one therefore, who is instrumental in sowing the Word of Life; whether in the high capacity of a ruler, sending forth, or maintaining Christian teachers, or whether actually as a Minister in dispensing this Word, or as a layman, in lending his assistance to speed the Gospel plough, and to scatter the good seed of the kingdom, the encouragement will ever be the same as of old, when it was said, "Sow to yourselves in righteousness; reap in mercy." (Hosea x. 12.) "To him that soweth righteousness shall be a sure reward." (Prov. xi. 18.)—"Light is said to be sown for the righteous," (Psalm xcvii. 11,) to intimate that the glorious fruits of their exertions will not be seen, till like the seed it has been sometime buried in

darkness. The time will, however, assuredly come, when a far larger and more rapid increase shall follow the exertions of the spiritual sower. The Gospel which in its propagation, now resembles an "handful of corn sown in the earth upon the top of the mountains," will then bear its fruit in a majestic harvest that shall every where shake like the forest of Lebanon. (Psalm lxxii. 16.) Then also will be experienced the fulfilment of that prophecy, "Blessed are ye that sow beside all waters," (Isaiah xxxii. 20,)* which alludes to the happiness of those who cast their seed, as the inhabitants of Egypt do, in lands recently watered by the river Nile, or sow in the confidence of an abundant increase. To every period of the church of God, there is however a measure of the same success, unequivocally assured; for by a similar metaphor, Israel was cheered during the Babylonian captivity, and every faithful member of the church militant upon earth may therefore take

* Or more properly, according to the Hebrew, "upon all waters." So the Septuagint Version renders, and the Genevan Bible. 'This (says Sir J. Chandler in his travels) exactly answers the manner of planting rice; for they sow it upon the water; and before sowing, while the earth is covered with water, they cause the ground to be trodden by oxen, horses and asses, who go mid-leg deep: and this is the way of preparing the ground for sowing.'

up the language of the same song for himself, "They that sow in tears shall reap in joy. He that goeth forth and weepeth, bearing precious seed shall doubtless come again rejoicing, bringing his sheaves with him." (Psalm 126.)

Inspiring, therefore, as the present Season is to the highest and best hopes of the Church, and affording as it does the str°ngest arguments to spiritual exertion, we should not quit the review of it without having our thoughts carried forward to that sublime event in man's desti y—the great day of the Resurrection. The operation of sowing the seed in the ground, is one which it appears from the highest authority bears a striking resemblance to that death of the human frame, which is to be preparatory to its future life. Referring to his dissolution and resurrection, the Son of God observes, "Verily, verily, I say unto you, except a corn of wheat fall into the ground and die, it abideth alone; but if it die, it bringeth forth much fruit." (John xii. 24.) St. Paul, following out the same idea, appeals to it as an irresistible proof of that doctrine which lies at the threshhold of our faith: "But some man will say, How are the dead raised up, and with what body do they come? Thou fool, that which thou sowest is not quick-

ened except it die: and that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or some other grain: but God giveth it a body as it hath pleased him, and to every seed his own body." (1 Cor. xv. 35—38.) The forcible comparison which is here drawn between a lifeless and unsightly grain allied to the earth in its qualities, and that same grain when transformed into a living plant, shooting up its verdant blade into the air, and ascending towards the skies, leaves no room to doubt that the body of man, shall at that future period be so divested of its present qualities, that there shall be no nearer resemblance between its state then, and now, than between the seed, and that plant which is its genuine offspring. The heavenly Saviour, as that same apostle tells us in another place, will so "Change our vile body that it may be fashioned like unto his own glorious body, according to the working of that mighty power by which he is able even to subdue all things unto himself." (Phil. iii. 21.) Glorious, indeed, as will be this change, when soul and body shall thus be linked together in indissoluble bonds; it will not be a new creation; it will be the transforming only of a natural into a spiritual body. The same substance will be cast into a new

mould; the building constructed of its old materials, though polished and adorned into celestial beauty by a high effort of Deity, and made the fit habitation of an angelic soul. Who then can presume to resolve the problem, in what the identity of the resuscitated body will consist? or to determine whether by certain staminal particles (as some have imagined,) or by the reunion of all those particles which were once laid in the grave, this identity will be preserved? Let it suffice us to believe that to him who annually performs a similar miracle in the growth of every grain that falls from the sower's hand, that to him who fashioned the fair frame of our great primeval mother from a single bone of the first Adam, and who raised the body of the second Adam in all the fulness of its uncorrupted particles, nothing can be impossible. Of far higher consequence will it be for every one to resolve as well as he may, the great practical problem of his own moral and spiritual fitness for the *resurrection* of the *just;* of his own soundness in that faith, whose glorious anticipations bring with them such solemn and weighty responsibilities. For as in the natural world, all the seeds which are sown do not spring up, but some rot in the very act of vegetating, so will it be in the final state of man:

some will only awake to shame and everlasting contempt. And the reason of this is plain, "God is not mocked: for whatsoever a man soweth, that shall he also reap. For he that soweth to his flesh, shall of the flesh reap corruption, but he that soweth to the spirit, shall of the spirit reap life everlasting." (Gal. vi, 7.)

APRIL.

THE RAINBOW, CLOUDS, &c.

——'Say, what mean those coloured streaks in heaven,
Distended, as the brow of God appeased?
Or serve they, as a flowery verge, to bind
The fluid skirts of that same watery cloud,
Lest it again dissolve and shower the earth?'

THE Rainbow is peculiarly the ornament of a showery April sky. This grand and impressive object seldom fails to attract the eye by the beauty of its colours, or to awaken the mind to some of those Scriptural recollections which are associated with it. The Son

of Sirach, the Apocryphal writer of the book of Ecclesiasticus, has shewn much wisdom by the manner in which he refers to this lovely specimen of the Creator's works: "Look upon the Rainbow," says he, "and praise him that made it; very beautiful it is in the brightness thereof; it encompasseth the heavens about with a glorious circle, and the hands of the Most High have bended it." There are but few persons who will not acknowledge the propriety of thus directing their attention to an object which is at once so conspicuous and striking, as to claim a tribute of admiration from all persons, whether young, or old, learned, or ignorant. How vast is the extent, how delicate the texture of its shadowy arch! How elegant in its form, and rich in its tinctures! but how much more delightful in its sacred significancy! for while the violet and the rose blush together in its beautiful aspect, the olive branch smiles in its gracious import. It writes in radiant dyes what the angels sang in harmonious strains, "Glory to God in the highest, and on earth peace, good will toward men!"

In a natural point of view, the agency of the clouds which produce the Rainbow so frequently at this season, is especially necessary to nurture and quicken the

growth of those plants, which are now beginning to germinate and spring up under the influence of warmer skies. All vegetable productions, like the young offspring of the animal world, seem to need a more fluid, or watery nourishment in their infancy than when in a more advanced state. Hence the reason that Providence now accumulates in our atmosphere an abundance of moisture, which condensing, or becoming heavier than it is in ascending, falls in those genial showers which are so characteristic of the month of April.

The economy of the clouds, and the various means by which they are made to minister to the wants of nature, is a subject deserving of equal wonder and gratitude. Elihu alludes to it, in language that describes significantly how the process continually goes on under the divine management: "Behold, God is great; he maketh small the drops of water: they pour down rain according to the vapours thereof, which the clouds drop and distil upon man abundantly." (Job 36.) The greatness of God is very conspicuous in this part of his works. The Almighty himself, speaking to Job from the whirlwind, is represented as proposing a number of questions, each of which were intended to

rebuke the ignorance of man, and among these we find the following, "Hath the rain a father, or who hath begotten the drops of dew? Who hath put wisdom in the inward parts? or who hath given understanding to the heart? Who can number the clouds in wisdom? or who can stay the bottles of heaven?" Questions, such as these are intended to make it manifest, that the curtain of a deep and unchangeable mystery, will always hang over much of this part of the works of God. Meteorology is still a science that has made but comparatively small advances even in modern times. Much more it is true is known of this and every part of nature, than in the days of the patriarch Job. The discoveries of Electricity and Chemistry have thrown much light upon some of the laws which govern the atmosphere. Under the guidance of these sciences, evaporation is believed to be a gradual solution of water in air, produced and supported, as other solutions are, through the agency of attraction, heat and motion.*

* Evaporation is one of the most important considerations in the whole natural history of air, but it is at the same time one of the most difficult, because we are not acquainted with that particular property, by means of which the atmospheric fluid is enabled to take up moisture from the surface of water, and of all humid substances, and again to deposite this moisture in rain

The ascent and descent of the clouds, and their general formation, are greatly influenced, as is evident, from numerous experiments, by the electric fluid. The discovery of the barometer, and of the great principle that the air of the atmosphere is a combination of two gases, Oxygen and Nitrogen, may well be considered as among the happiest and most brilliant efforts of modern genius. But although some of the general principles which regulate the phenomena of Meteorology are thus better understood than in ancient times, this science is one in which man must be content to obtain but a glimpse of the ways of God. Nature's laboratory is on too gigantic a scale to be imitated by the pigmy experiments of man. An angel's eye, and an angel's hand would be required to work the vast machine, which could alone unravel the operations of those mighty laws which regulate the changes of the atmosphere, and teach us how to know "the balancings of the clouds, the wondrous works of him who is perfect in knowledge." A single glance at the sublime phraseology used respecting this branch of science in

or snow, for the refreshment of those very plants, and the replenishment of those very waters, from which this moisture is in the first instance taken.—*See Mudie on the Air, an interesting work on these subjects.*

the book of Job,* will serve to shew the splendid mystery which seemed to attach to it in the eyes of the wisest and most learned of ancient times; a conclusion which must at least suffice to convict of transcendent folly, the pretensions of those in our own day, who attempt to predict the changes of the weather with as much certainty and particularity, as if they could indeed, (to adopt the language of the Divine Speaker,) "Lift up their voices to the clouds, that abundance of waters may cover them, or send lightnings that they might go, and say unto them, here we are." chap. 38.

Far wiser and more commendable is their employment who extract from the varied, the beautiful, and the beneficial aspect of the clouds, fresh matter for admiration of the Divine benignity and wisdom. A sky without clouds would have lost much of its beauty. It would have been like a world without its hills and vallies; or like a countenance in which there was no perceptible emotion of joy or sorrow. The loveliest landscape would have been divested of a portion of its charms, if not occasionally beheld under the enchant-

* I entirely acquiesce in the reasoning which the matchless Faber has advanced, to prove that Moses was the author of the book of Job.—*Treatise on the Three Dispensations, vol. 2, b. 2, c. 6.*

ing influence of that soft veil of shadows, which is thus thrown over its features; not to mention that we should never have seen the glorious face of nature lit up with that animated and celestial splendour which it frequently puts on, when under the influence of a rising or a setting sun.

The benefits enjoyed by man through the agency of the clouds, are so apparent as to commend themselves to the most common observation. Every mortal, however rude and ignorant, is able to understand how dependant we are upon these, for that due supply of moisture which is so essential to vegetation at all seasons, and without which it must soon sicken and die even in this temperate climate. How few are there, however, who look up with gratitude proportionate to the benefits they receive from those descending showers, so pregnant with the bounty of heaven! Surely it becomes the Christian not merely to remember, but to be always mindful, that the uncertainty which attaches to these blessings, is intended to teach an habitual reference to the power and goodness of our Divine Benefactor. We are too much accustomed to refer these things to the order of nature, not considering that there is a providential disposition of them, to which

nature and its laws are altogether subservient. Occasional instances of drought render this truth more apparent, just as the stopping of a single wheel in a machine enables us the better to perceive the exquisite perfection of its parts and movements, and to acknowledge the skill of him who constructed it. But inspired testimony throws an additional light upon this conclusion, from the history of the ancient people of God. When, for instance, we observe the windows of heaven shut up, as they were over a guilty land for the space of more than three years, at the prayer of Elijah, we see that the hand which made the machine, still directs and controls it for great moral purposes. Hence we are brought to the same inference as Elihu, "By watering he wearieth the thick cloud, he scattereth the bright cloud. And it is turned round about by his counsels, that they may do whatsoever he commandeth them upon the face of the earth. He causeth it to come, whether for correction, or for his land, or for mercy." (Job xxxvii. 11—13.)

But to return to the Rainbow, although it is generally known, that this meteor is the effect of the falling shower, it is probable that many are still content to remain ignorant of the precise natural cause which pro-

duces so glorious an object. To understand this phenomenon perfectly, would require an acquaintance with one of the most intricate of modern sciences; for it is only since the laws of the reflection and refraction of light were explained by Sir Isaac Newton, that the science of optics, which alone can illustrate this subject in a satisfactory manner, has been fully understood. Suffice it, therefore, to observe here, that each ray of light consists really of the three, or, to speak more correctly, of the seven colours seen in the bow: and that these colours become visible to the eye by being reflected upon, and through the innumerable drops of a dense cloud descending opposite to the sun. Each of these drops thus serves as a cut crystal or prism, to reduce the rays of light falling upon them, to their most simple or coloured state, and hence they present the eye with an arch of coloured drops, corresponding with the arch of the heavens. The same law of light which colours the Rainbow, is that to which we are indebted for the vivid green which decks the face of the earth, the azure vault of the heavens, and all the various hues and tints which bodies assume. A stream of light is to be considered as a cluster of seven rays, whose mixture forms white, and the division of which produces seven principal and

immutable colours. When this union is destroyed, as in the case of a ray passing through water and viewed at a certain angle, or through a piece of glass having a certain number of sides and termed a prism, it is said to be refracted, or broken back into its simple state in which its separate colours are rendered visible. The surfaces of bodies, or rather the particles which form their surfaces, being then considered as so many little prisms that break the light, it is obvious that they will reflect a variety of colours.* In bodies, however, whose substance is opaque, one uniform colour will be assumed, which will depend upon its tendency to absorb some of the coloured rays, and to emit, or reflect, others. In plants, for instance, only the green rays

* Dr. Brewster has well observed, that 'If the objects of the material world had been illuminated with white light, all the particles of which possessed the same degree of refrangibility, and were equally acted upon by the bodies on which they fall, all nature would have *shone with a leaden hue*, and all the combinations of external objects, and all the features of the human countenance would have exhibited no other variety than that which they possess in a pencil sketch, on a china-ink drawing. But he who has exhibited such matchless skill in the organization of material bodies, and such exquisite taste in the forms upon which they are modelled, has superadded that ethereal beauty which enhances their more permanent qualities, and presents them to us in the ever-varying colours of the spectrum.'—*Life of Sir John Newton, p.* 78.

will be given out, and in some other substances only the red rays. This is the general principle upon which we may account for the delight which the eye experiences from that variety of colour which is seen in its parts, in the various objects around us, but which is contemplated as a whole in the magnificent splendor of the ethereal bow.

The theory, as well as the actual appearance of the Rainbow, are thus beautifully depicted by Thomson in his Poem to the memory of the Great Philosopher, whose discoveries in the science of optics alone, would have immortalized his name,—

——'Light itself, which every thing displays,
Shone undiscovered, till his brighter mind
Untwisted all the shining robe of day;
And, from the whitening undistinguish'd blaze,
Collecting every ray into his kind,
To the charm'd eye educed the gorgeous train
Of parent colours. First, the flaming red
Sprung vivid forth; the tawny orange next;
And next delicious yellow; by whose side
Fell the kind beams of all refreshing green.
Then the pure blue, that swells autumnal skies,
Ethereal play'd: and then, of sadder hue,
Emerged the deepen'd indigo, as when
The heavy skirted evening droops with frost,
While the last gleaming of refracted light
Dy'd in the fainting violet away.

These, when the clouds distil the rosy shower,
Shine out distinct adown the watery bow;
While o'er our heads the dewy vision bends
Delightful, melting on the fields beneath.
Myriads of mingling dies from these result,
And myriads still remain; infinite source
Of beauty, ever blushing, ever new:'

It can scarcely be expected that by a description of this nature, the reader who is previously unacquainted with these subjects should fully understand all the causes which are concerned in producing the Rainbow. Enough, however, has been said to convey a general idea of the manner in which the sublime spectacle is produced. It is of more importance to our present purpose, to direct the heart of the devout Christian to a consideration of the ends for which this noble object was designed by its Creator.

Like all the rest of his works, it had a fixed purpose, and was intended to be a sign and seal of his covenant with man to destroy the earth no more with the waters of a flood. (Gen. ix. 13—15.) Surely, therefore, we ought never to forget when we see it, that it is an illustrious pledge of the divine mercy and goodness, and is intended to confirm our faith and confidence in God. Other pledges and symbols of this nature have had their use, and have passed away; but here

one designed for all ages, and one which is as fresh, beautiful, and as full of promise now, as when it cheered the hopes of righteous Noah and his family more than 4000 years ago. In short, to adopt the language of an eminent modern poet,—

'As fresh in yon horizon dark,
As young its beauties seem,
As when the eagle from the ark
First sported in its beam.

For faithful to the sacred page,
Heav'n still rebuilds its span,
Nor shall the type grow pale with age
That first spoke peace to man.'

It is an enquiry upon which we cannot here enter, whether the world before the flood had ever seen a Rainbow.* The sacred narrative seems clearly to imply that it had not. It is of more advantage to enquire what was designed by the form of the Rainbow. Many circumstances render it probable that the atmosphere of the earth underwent a great change

* If Noah had seen a Rainbow before, it is evident that *as a sign* it could afford him no consolation, or certainty, beyond what he had already. There seems reason to think that the circumstances of the primitive earth were such as not to require rain, See Genesis ii. 5, 6. If the reader wishes further confirmation on this point, let him consult the work of an able writer of the present day, Dr. Ure's, new System of Geology.

by that dire event; and even if it did not, surely he who maketh the clouds his chariot, could have so regulated their appearances that they might never have exhibited the Rainbow. As all the prophetic symbols have had a meaning, this would seem to have been intended as the bow of mercy, in opposition to those bows used in war, and in the chace from the earliest times, which were rather weapons of wrath and destruction. The imagination of Noah and his posterity might in this bow well figure to themselves the noblest symbol of power, united with forbearance; the emblem of Almighty strength, divested of its fearful arrows of wrath, and no longer strung for purposes of hostility, but suspended in heaven as a potent warrior's trophy and token; being alike adorned with the colours of anger and peace, as if to denote at once the wrath of an offended God towards his enemies, as well as the eternal duration of his favor to all the repentant and believing sons of Adam.

If to Noah the Rainbow might have suggested thus much, may it not teach a still higher lesson to us? Is it not now the emblem or type of a new and better covenant than that which God made with his Old Testament Church? Such, assuredly, we may deem

it, on the authority of that sublime vision which St. John tells us he saw; (Rev. iv. 2, 3;) "I was in the spirit: and, behold, a throne was set in Heaven, and one sat on the throne; and there was a Rainbow round about the thro ne, in sight like unto an emerald." What, indeed, can here be signified but that covenant of grace with which the throne of Christ as a Redeemer is as it were encircled under the gospel dispensation? And what can convey a higher idea of that kindness which actuated him to deliver a lost world from eternal destruction, than the figure of an emerald bow. In nature the most refreshing and delightful of all hues is green, the colour of the precious emerald; and green is also a significant emblem of fertility and duration. Thus in the glorious object which St. John beheld surrounding the great Head of the Church in Heaven, we have a splendid token of that great covenant of salvation which contains within it every blessing for time and for eternity, which is ordered in all things and sure; and in virtue of which it is the duty, as well as the privilege of the believer, to look upward, and regard the celestial bow, with its meteoric splendor as the "bow of God;" a lovely apparition, shedding its lustre upon the storm and upon the cloud—teaching us

to hope in the midst of adversity, and coming forth amidst the passing scenes of this 'peevish April day,' to soothe and to tranquilize; at once the messenger and the symbol of the Redeemer's love, and an earnest of future peace, triumph, and deliverance in the eternal world.*

* The Rainbow is thus made the subject of a very pithy application by an old writer, which we shall give in his own language, of the year 1615; 'TheRainebow is taken as a figure of Christ; and therefore we are thereby taught, that when either the darke blacknesse of ugly sinne, or the thick clouds of griefe, and adversity, do threaten unto us any feareful overthrow, we should clap our eies upon our Rainebow Christ Jesus, and be assured that though that blacknesse of sinne be never so great, yet in him and by him it shall be done away, and never have power to cast us away; though those mists and fogs of adversity be never so thicke, yet shall they by him, as by a hote and strong sunne, be dispersed and never able to drowne us.'—*Bishop Babington's comfortable Notes on Genesis.*

MAY.

SPRING.

'The Spring is here—the delicate footed May,
With its slight fingers full of leaves and flowers,
And with it comes a thirst to be away,
Wasting in wood-paths its voluptuous hours—
A feeling that is like a sense of wings,
Restless to soar above these perishing things.'

"Lo, the winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land!" So sung Solomon, in the lovely land of Judea, a thousand years before the Christian æra. But Spring has been a season delightful in all ages and climates; though in none perhaps more so than in the British islands. Willingly therefore may the Church listen to the royal Poet, as if Christ himself were addressing her in the gospel language of pure affection, "Arise, my love, my fair one, and come away." To this call the Christian Naturalist would

readily respond, and go forth amidst those scenes which now bear the loveliest impress of the Redeemer's hand. He would enter upon the first of May with something of that ardour of spirit which led our rural ancestors to welcome it with a variety of festive ceremonies; and though he would not imitate the custom of our pagan ancestors in dancing round a may-pole in honor of the imaginary goddess Maia from whom this month derives its name, he would esteem it a delightful and profitable employment to go forth and gather flowers on the first May morning; to greet the beams of the rising luminary, while the heavy dews are yet glistening in countless drops upon the rising herbage.* What can be more interesting than thus to hail the arrival of a

*One of our old Rural Poets thus expostulates with the Sluggard on a May morning:—

'Nay, not so much as out of bed,
When all the birds have mattins said,
And sung their thankful hymns; 'tis sin,
Nay, profanation to keep in:
When as a thousand virgins on this day
Spring sooner than the lark, to fetch in May.'

It should be observed that by the alteration of the style, the first of May, so renowned in the poetical calendar, was thrown back 12 days into April. This may in part account for the day being somewhat colder than it was at an earlier period.

season which is full of pleasing ideas, and which is so anxiously looked forward to, amidst the gloomy and stormy months of winter? Doubtless there is much in Spring to awaken the attention of every inquiring mind, and call forth a tribute of gratitude to the Creator from every thankful heart. Who can listen to the thrush warbling amidst the groves, or behold the lark mounting upwards towards the gates of heaven, without wishing to join in the melodious concert of praise which is now poured forth by these and innumerable feathered songsters of the earth and air? Who can survey the fields clothed with verdure, the trees expanding into full leaf, and the flowers putting on their gayest and freshest dress, without feeling as it were a new emotion, a sensation peculiar to the season of Spring? Fragrance is in the air, beauty in the earth and brilliancy in the sky. Under the influence of a reviving temperature, fresh vitality seems infused into all the springs of nature. It wears the aspect of youth, and its blushes and smiles are those of virgin innocence and loveliness. We look and we look again at the picture, and it seems to carry back the thoughts to that period when man came fresh and uncorrupted from his Maker's hand; "when the morning stars first sang together, and all the sons of

God shouted for joy;" when the earth blossomed forth into unnumbered beauties beneath its Creator's first blessing; when sin had not yet cursed the ground for man's sake; and man himself, the lord of this lower world, walked forth amidst the charms of Eden, to make his first delicious banquet upon the tree of life.

Our great Poet Milton has most happily pictured the sensations of Adam, upon his first awakening into being, and beholding the beauties of the newly-created world; and they are no less adapted to describe the face of nature, and the feelings which must be inspired in some degree with every returning Spring, in the bosoms of those who are susceptible of any right impression:—

——— 'About me round I saw
Hill, dale, and shady woods, and sunny plains,
And liquid lapse of murmuring streams; by these
Creatures that liv'd, and mov'd, and walk'd, or flew,
Birds on the branches warbling; all things smiled;
With fragrance, and with joy my heart o'erflow'd.

——— Thou Sun, said I, fair light,
And thou enlighten'd Earth, so fresh and gay,
Ye hills, and dales, ye rivers, woods and plains,
And ye that live and move, fair Creatures, tell,
Tell, if ye saw, how I came thus, how here?

Not of myself,—by some great Maker then,
In goodness and in power preeminent:
Tell me how I may know him; how adore,
From whom I have that thus I move and live,
And feel that I am happier than I know.'

But if our thoughts are thus carried backward by the season of Spring, to that time when man had not yet fallen, they may also be carried forward to a period and a place of still greater importance; to that world where there is fulness of joy;—an eternal spring of all conceivable blessedness in the heavenly Paradise. Poetry may help to express this idea, and has well embodied the sentiment in a few lines addressed to the Creator,—

'Oh Thou our good beyond compare,
If thus thy meaner works are fair;
If thus thy glories gild the span
Of ruin'd earth, and sinful man,
How glorious must that mansion be
Where thy redeem'd shall live with thee!'

It has pleased our God in infinite mercy, notwithstanding the fall, to leave us a taste of those pleasures which we might altogether have been deprived of upon earth, in order that we may better know how to prize, and earnestly seek after, those joys which are at his right hand for evermore. Surely this is the right improve-

ment we ought to make of Spring! We shall have lived to little purpose, and have looked upon the beauties of opening nature in vain, if these things do not carry our thoughts upwards, and quicken our steps towards that heavenly Eden where pleasures, such as the season now presents us with, shall not be transient and uncertain as they are here, but lasting and never-fading as their great Author. The world we live in is still for the most part a goodly world; it is still sumptuously stocked and adorned, and was evidently intended for a better guest than man in his present state, is. But the heavenly Paradise, though infinitely more beautiful, will find all its inhabitants worthy of it. Its glory will be as much, nay far more, enhanced by the presence of these, than the earthly Paradise was by the presence of Adam. Here, indeed, there is too often a strange incongruity. Human fiends pollute the scenes which might almost seem fit for the residence of angels. Hence, although lovely in themselves, they lose much of their charms; and we are filled with shame and sorrow at beholding what seems almost a confirmation of the infidel sentiment with regard to some beautiful countries,—

'Where all save the spirit of man is divine.'

But in the Paradise above, nothing of this seeming opposition shall exist. Heaven, with its angelic bands, and its glorious company of the just who have washed their robes and made them white in the blood of the Lamb, shall present no unharmonious feature; it shall receive within it nothing that defileth. The element and the scene shall not be more pure, than the blessed inhabitants that breathe its air and behold its beauty. The beams of an eternal spring shall only serve to burst the buds, and to unfold the blossoms of eternal righteousness.

In the contemplation of such a season, it cannot but inspire a feeling of melancholy, that man should think so little about this high and immortal destiny which awaits the righteous hereafter. The same book of nature which now displays the resurrection of a vegetable world from the death-like sleep of winter, exhibits a striking emblem, and a strong proof, drawn from analogy, of the wonderful power by which God will finally raise the bodies of all the seed of Adam that shall sleep in the dust, when the Archangel's trump shall summon them to judgment. It is the Gospel volume only, however, which reveals the secret of man's indifference to that great event, and proclaims him to be already "dead in trespasses and

sins." It is here also we discover the necessity of recovering that image which was lost in Paradise, and which must be again regained by a new creation of the heart; a moral spring of the human character; under the quickening influence of Christ as the Sun of Righteousness. He who has experienced this renewing of his mind, has already passed from spiritual death to spiritual life. His heart has responded to the Gospel call, "Awake thou that sleepest, and arise from the dead, and Christ shall give thee light;" and it is his privilege, while he views 'all nature quick and bursting into birth' at this season, to behold this transformation, but as a type of that still more glorious period when there shall be "new heavens and a new earth, wherein dwelleth righteousness."

But what solace can the sinner, who is not "made alive unto God," derive from such reflections, or indeed from any thing in the present season! It has been well observed that 'a blighted spring makes a barren year, and that the vernal flowers, however beautiful and gay, are only introduced by Nature as preparatives for autumnal fruits.' And if this be true in the natural, how much more so with reference to the spiritual world! Vain will it be for the man who has trifled away the spring-

time of his life,—who has suffered the happiest season of grace, and the day most favorable to his salvation, to pass away without improvement, to expect that comfort, and true happiness which religion only can yield in maturer age. Hence the sensation which "men of the world" have sometimes experienced at the return of another Spring, has been only that of sadness; for it has seemed to recal the vision of earlier and better days, when their time and talents had not yet been suffered to run to waste. The vanity of life is more sensibly felt by such men, from the associations which are awakened by the sight of that external world, which however beautiful, is as they are sensible rapidly passing away, and bearing them nearer to that future which they fear to contemplate. They feel, indeed, that the spring of life can for them return no more, and that they have none of these fruits of solid peace and joy, of which they once hoped that their bright and early days gave promise. Alas! to the eye of one who has none of the hopes and comforts of the gospel, nature smiles in vain even at this beauteous season. She seems to put on, not her bridal but her funeral dress. As she rises from her tomb, her sweetest voice falls upon his ear like the hollow voice of a spectre; for it

rings the knell of an accusing conscience, which proclaims, that the wintry curtain of spiritual sleep and death still hangs over his soul. The leaves and flowers, the birds and breezes, and the balmy skies, can yield him no pleasure; for he is ever haunted by the reflection that he must full-soon awake from his dream of folly, but only to learn the dreadful truth, that for him even Eternity has no second Spring.

JUNE.

SUMMER.—THE FLOWER GARDEN.

'From brightening fields of ether fair disclosed,
Child of the Sun, refulgent Summer comes.'

'Thus in the train of Spring arrive
Sweet flowers! what living eye hath viewed
Their myriads? Endlessly renewed
Wherever strikes the sun's glad ray.'

The course of the seasons has now brought us to Summer; a part of the year in which we may see abundant reason to admire and bless the divine hand

which thus unlocks all the treasures of creation, and displays its infinite resources of grandeur, beauty, and fertility. If Spring is the season of expectation, Summer is the season of enjoyment. Nature now brings rapidly to perfection the various productions of the earth, upon which the sustenance of man and the inferior animals depends. The Sun has reached his highest throne in the heavens, and, like the monarch of all he surveys, seems to look down with the full pomp and pride of his beams upon this lower world which lies basking in his smiles. Whatever are the other provisions which the Creator has made for man in his Providence, surely all these would be worth but little were it not for the animating presence of this great orb of light and life. At all seasons of the year we feel the benefits of this luminary, and hail his light as the first-best blessing of the works of God: but Summer is the season when we are most fully sensible of our obligations to that degree of warmth and vitality, which he sheds down upon the earth and its inhabitants. It is now that the sublime language of the Psalmist is especially verified: "He cometh forth as a Bridegroom out of his chamber, and rejoiceth as a giant to run his course; his going forth is from the

end of the heaven, and his circuit unto the ends of it, and there is nothing hid from the heat thereof."

It is, perhaps, to the too abstract consideration of the unnumbered benefits derived from the Sun as the great and main agent to whom we are indebted for every blessing that Summer skies afford, that the Gentile nations have been so ready to fall into the awful and pernicious idolatry of paying their homage to this glorious specimen of the Creator's power, rather than to the Creator himself. Our privilege as Christians it is to thank God that we have been kept from this idolatry, and to shew that we are fully sensible to whom we owe our obligations, while we are thus permitted to behold his beams shining upon us,—

> 'To drink the spirit of the golden day,
> And triumph in existence.'

In looking at the Sun our thoughts should at this season more peculiarly revert to him who is the Father of Lights,—

> 'Nature's immortal, immaterial SUN'—

who reveals himself in his word as the Sun, no less than the Shield of his people; who is Light, and dwelleth in Light; and who, though he will not give his glory to

another, has expressly directed our thoughts to him who is the brightness of his Father's glory, and the express image of his person. The rising of this great spiritual luminary upon the world was reserved for the New Testament dispensation, and the present part of it may be considered as the Summer season of God's Church; and the realization of the famous prophecy of Malachi, "Unto you that fear my name shall the Sun of Righteousness arise with healing in his wings."

If, indeed, in contemplating this great mystery of godliness, "God manifest in the flesh," we are struck with wonder and astonishment, our thoughts may naturally turn also to the mystery which envelopes the solar orb. Surely if we cannot comprehend the material image of the Creator and the Redeemer, how much less can we presume to know of that Great Being himself, who is the cause of causes and the power of powers; by whose word it is that all the wheels of nature are kept in continual motion through the agency of the Sun as the main-spring, or central wheel, of the whole system. Let those who deny the doctrine of Christ's Godhead, because they cannot reason upon it, explain to us first the mysteries of the natural world. Let them tell us, what is Light? and whether it is a

part of the Sun, or something wholly distinct from it. Philosophers have written much upon the laws of light; but after all that has been said, its essence is as much unknown to us as the essence of God himself. This, therefore, may teach us caution in judging of divine things, "For who by searching can find out God?"

But the Christian Naturalist would not forget the earth, with its tribes of living beings all gay and full of animation, and its beautiful kingdoms of vegetable nature, all spread out like a splendid picture to feast the eye, to fill the mind, and to awaken the gratitude of man that was once crowned king and lord of all this lower creation. Wherever he looks at this season he sees innumerable beings animated with life, and apparently rejoicing in their existence. The Swallow with the swiftness of an arrow, darts through the air, and reminds him, by the regularity of its return, of that law of instinct which so forcibly rebukes the inconsistency and carelessness of man towards his Maker. See Jeremiah viii. 7. The Bee buzes from flower to flower, to gather honey for its winter store, as if to give us a beautiful example of industry and prudent foresight. And even the little Ant, so laboriously working at this season, teaches a lesson to the sluggard

which Solomon thought worth inculcating.* (Prov. vi. 6) So also the painted Butterfly, tricked out in all the hues of Summer, and fluttering to and fro continually amidst the sunshine, may remind the sons and daughters of pleasure, by the brevity and apparent inutility of its existence, of the vanity and shortness of that life of pleasure to which they devote themselves. But this lovely attendant upon a Summer's day may also teach us a nobler truth. The changes through which this and many other of the insect tribes pass, from the egg to the caterpillar, from the caterpillar to the chrysalis, and from this to a perfect fly, is one of the most striking things in nature, and is no mean type of man in his translation from a mortal to an immortal state. An elegant Poet of the present day has thus apostrophized the butterfly, and sketched out its typical existence :—

* It is not necessary to suppose from this passage that the Ant usually stores up grain against the winter, which is not agreeable to the fact at least in our climate, where the Ant is perfectly torpid during the winter. It appears, however, that one species of Ant has lately been discovered in the East Indies which does lay up corn agreeable to the commonly received opinion. The name of this species is 'Atta providens.'—*See Kirby's Bridgewater Treatise, v. 2. p.* 344. *and Entomology, v.* 2. *p.* 46.

'Child of the Sun! pursue thy rapturous flight,
Mingling with her thou lov'st in fields of light;
And where the flowers of Paradise unfold
Quaff fragrant nectar from their cups of gold:
There shall thy wings, rich as an evening sky,
Expand and shut with silent extacy.

—— Yet wert thou once a worm, a thing that crept
On the bare earth, then wrought a tomb and slept?
And such is man; soon from his cell of clay
To burst a seraph in the blaze of day.'—*Rogers.*

This subject is in itself so interesting that it deserves here a further illustration, and this has been done with much propriety by a distinguished Entomologist of the day, whose words we take the liberty to borrow: 'Although,' he observes, 'the analogy between the different states of insects and those of the body of man is only general, yet it is much more complete with respect to his soul. The first appears in this frail body a child of earth, a crawling worm, his soul being in a course of training and preparation for a more perfect and glorious existence. Its course being finished, it casts off the earthly body, and goes into a hidden state of being in Hades, where it rests from its works, and is prepared for its final consummation. The time for this being arrived, it comes forth clothed with a glorious body, not like its former, though germinating from it, for

though it was "sown an animal body it shall be raised a spiritual body," endowed with augmented powers, faculties, and privileges, commensurate to its new and happy state. And here the parallel holds perfectly between the insect and the man. The butterfly, the representative of the soul, is prepared in the *larva* (the caterpillar) for its future state of glory; and if it be not destroyed by the ichneumons and other enemies to which it is exposed, symbolical of the vices that destroy the spiritual life of the soul, it will come to its state of repose in the *pupa* which is its Hades; and at length, when it assumes the *imago*, break forth with new powers and beauty to its final glory, and the reign of love. So that in this view of the subject well might the Italian Poet exclaim, 'Do you not perceive that we are caterpillars, born to form the angelic butterfly.'*

Nature is ever changing, ever beautiful; but perhaps the richest feast which it presents to the eye at this season is to be found in the Flower Garden. Not,

* It is worthy of remark that in the North and West of England the moths that fly into candles are called *saules*, (souls) perhaps from the old notion that the souls of the dead fly about in search of light. So among the Greeks, Pysche, signified a butterfly as well as the soul, and upon sculptures the latter was often represented by this insect.—*Kirby and Spence*,

indeed, that the productions of the fields and hedges are undeserving of our regard, for in Devonshire and Cornwall, at least, there is no lack of those sweet and lovely wild flowers which may form a rich and even splendid nosegay. Still, however, art wisely displays its taste in selecting some of the choicest of these, and also intermingling them with the more curious and brilliant productions of other lands. We have always regarded the pleasure that is taken in cultivating a Flower Garden, as more like that enjoyed by the first man in Paradise, than any other kind of earthly pleasure; and hence we have always been accustomed to consider the pains that are taken in the collection and nurture of a variety of choice flowers, as well bestowed: and affording a better omen of industry, cheerfulness, and a degree of comfort unknown in former times, than any other outward circumstances. The neat cottage garden, of which we see so many examples in Cornwall, gay and smiling, as it looks at this season, with some of the most splendid productions of the East—the Tulip, the Anemone, and the Ranunculus—is a sight most gratifying to the mind as well as to the eye, for it tells of peace, and security, and of those blessings with which Providence has so richly crowned

our land by commerce. We may generally, perhaps, form some notion of the character and situation of the inhabitants of a cottage, by looking at the little garden in front of it. Where there is nothing of this sort, we may be almost sure to meet with poverty in its worst form, if not with ignorance and vice. It would be delightful, therefore, to see every cottage with its proper ornament of a few beds of flowers to gladden the eye of the owner, and to bespeak his sense of the beauties and wonders which the Divine Hand has so richly lavished upon this part of the creation.

Flowers are, indeed, among the most interesting of those productions which display the exquisite skill and boundless wisdom of the Infinite Mind. Their variety astonishes, as much as their beauty captivates us. Every country has its peculiar species. Some of these love the burning suns of India; some the barren desarts of Africa; and America and New Holland are as much distinguished by flowers of singular and rare beauty as by their animals, which differ greatly from those of all the rest of the globe. Then, again, there are some flowers which are the natives only of temperate climates, and a few are confined to the snowy regions of the North. Each has also its own select situation

and soil; some choose the mountain, and some the valley; some flourish best in poor ground, and many are to be found only in the richest pastures. Nor are they less remarkable for their different qualities. In some are combined the qualities of fragrance and beauty; but those which have little of the latter, have often valuable properties as medicines. Even those which were formerly esteemed poisonous, are now found to be useful to the skilful Physician, and class among the most beneficial of his remedies. In short, every combination of beauty and utility that the mind can conceive, and far more than it could have imagined, is to be found in those flowers which are so widely scattered over the fair face of the whole earth, as if for the express purpose of awakening man's attention every where to the beauty of the works of God, and convincing him that the same Almighty Wisdom interests itself in the small, as in the great things of the universe; no less in the ornaments with which it has decked the earth, than in those stupendous orbs of light with which his Spirit hath garnished the heavens.

It is not, however, a mere admiration of the beauties of the Flower Garden that we recommend to our readers. The Christian Naturalist sees in the variety

and beauty of its productions, a pleasing picture of the vast diversity of character which adorns the members of the Church of Christ. The brilliant hues of some flowers, and the fragrance of others, aptly represent those who adorn the doctrine of God their Saviour in all things, and whose example diffuses the sweet savour of life and salvation to all around them. But there are others of a humbler class, which have peculiar excellencies of their own, which the skilful eye of the observer can trace with as much ease as the experienced florist discerns the beauties of his favorite flowers. In the Christian Church, the gifts and graces of men widely differ. Some are adapted to adorn one station of life, and some another; these to flourish best in the humble valley of life, and those to bear the rough blasts of the mountain. The soil of poverty is best suited to unfold the qualities of some, and others flourish well amidst the strong sunshine of prosperity, and the fertile soil in which their lot has been planted. All, however, are alike nourished by the same general means of grace, though the Spirit "divideth to every man severally as he will;" but prayer, the breath of heaven, is the atmosphere in which *all* must live. All must be baptized and watered by the same Spirit, and be fed with a due

portion of the wholesome food of God's word. Thus nurtured and strengthened, every member of the Church in his proper season and place, like the flowers of the garden, adorns the situation which he fills, becomes a bright and beautiful example of godliness in his particular sphere of duty, and abundantly proclaims the wisdom and goodness of him who transplanted him from the wilderness of this world, to a place where he may adorn and magnify the riches of divine grace.

A Flower Garden then may be considered as a nursery of sacred wisdom. In comparison with other pleasures, with those which are formed by the world in general, it commends itself by the strongest arguments to the attention of all. 'An indulgent Providence,' observes Dr. Young, 'has provided us with irreproveable pleasures; why are these swept away with an ungrateful hand, to make room for poisons of our own deadly composition in their stead? Epicurus was in love with his garden; a garden has ever had the praise and affection of the wise. What is requisite to make a wise and happy man, but reflection and peace? and both of a garden are the natural growth. Nor is a garden only a promoter of a good man's happiness, but a picture of it; and in some sort, shews him to

himself. Its culture, order, fruitfulness, and seclusion from the world, compared to the weed's wildness and exposure of a common field, is no bad emblem of a good man compared to the multitude. A garden weeds the mind; it weeds it of worldly thoughts, and sows celestial seed in their stead. For what see we there, but what awaken in us our gratitude to Heaven? A garden to the virtuous is a paradise still extant; a paradise unlost. What a rich present from heaven of sweet increase to man was wafted in that breeze! What a delightful entertainment of sight glows in yonder bed, as if in kindly shower, the watery bow had shed all its most celestial colors on it! Here are no objects that fire the passions, none that do not instruct the understanding, and better the heart, while they delight the sense. Who cannot look on a flower till he frightens himself out of infidelity? Religion is the natural growth of the works of God; and infidelity, of the inventions of men.'*

Not only, however, may the Christian here gather an argument against the infidel and the sensualist, but he may here be profitably reminded of the vanity and fleeting nature of the best of worldly things. From the

* Centaur, not fabulous.

short-lived duration of many of the beauties around him, he may learn the transitory nature of all human glory, and the little reason there is that any mortal should pride himself upon those distinctions which at the best are fleeting as a lovely flower. It is a favorite metaphor with the sacred moralist when they speak of man and of his brief existence here, to compare him to a flower. "Man," says Job, "cometh forth as a flower, and fleeth as a shadow, and continueth not." So also the Psalmist, "As for man, his days are as grass, as a flower of the field so he flourisheth. For the wind passeth over it, and it is gone, and the place thereof shall know it no more." To the Christian who contrasts with this, the mercy of his God which is from everlasting to everlasting, and who has learnt with St. Paul to "die daily," the ephemeral character of many of the flowers which he most admires, suggests no mournful impression. He walks by faith and not by sight; and thus learns that while the things seen and temporal are always uncertain, the things unseen and eternal can never deceive him. Thus instructed by the fleeting beauties of the Flower Garden, he acquires the heart of living above the present world while he lives in it; pants after a more durable

glory than any thing here can bestow, and feels a hallowed sobriety even in the midst of the most joyous scenes of his earthly existence.

All the flowers of the field and of the garden may in this manner teach us to "redeem the time." But there is a certain class which does this in so happy and forcible a way, that it requires some further notice in this place. We allude to what are sometimes termed by Botanists 'Dial-plants,' from the circumstance of their opening and shutting their blossoms at particular hours. The celebrated Linnæus has given a list of flowers of this description, which has been not inaptly termed 'Flora's Watch.' It would be easy to assemble these in one group, so as to mark the flight of time, by the closing and expanding of their flower-petals; and this with almost as much accuracy as by the hands of a clock. To what cause this curious feature in their natural history is to be ascribed, is yet unascertained. Whether it be analogous to the sleep of animals, or whether it be the effect of a peculiar irritability which is peculiar to the vegetable kingdom, seems altogether doubtful. The fact, however, is one which though inexplicable, ought not to be lost upon us. We can scarcely doubt but that it was designed by a merciful

Creator to teach us not only the necessity of numbering our days, but of exactly regulating our hours, so as "to apply our hearts unto wisdom;" in other words, of giving to each of the duties of life, their proper time and season, so that the whole circle of our existence may be filled up by that variety of cares, or employments which are assigned to us; one closing and another opening, and each with a different colour, to mark the changeable character even of those minuter portions of time into which our lives are daily divided. A Flower-Dial thus constructed,* having each of its hours marked by an appropriate plant, might be as useful as a Sun-Dial. No more fitting motto could be found for it, than that which a distinguished female pen has suggested,—

'Twas a lovely thought to mark the hours
As they floated in light away,
By the opening and the folding flowers,
That laugh to the Summer's day.

* In a recent work entitled 'Conversations on Nature and Art,' the reader will find the Linnæan list of plants, that may be used for this purpose, with the times of their opening and shutting. But in Loudon's Encyclopædia of Gardening, p. 885, will be found a list of plants more generally accessible, The Colvolvolus met with near the sea, opens between 5 and 6. A. M. So also does the Dandelion. The Pimpernel, between 7 and 8, and the common Chickweed, between 9 and 10.

And is not life, in its real flight,
Mark'd thus—even thus on earth,
By the closing of one hope's delight,
And another's gentle birth.

Oh let us live, so that flower by flower
Shutting in turn, may leave
A lingerer still for the sun-set hour,
A charm for the shaded eve.'—*Mrs. Hemans.*

If our contemplations in a Flower Garden thus remind us of things which are of such inestimable importance, we shall walk there at this delightful season with new sensibilities and hopes. To see God in these his beautiful works, is one object which a true Christian will ever keep in view; and to see Christ, the God-Man, in the glory of his Church, is another, which every thing in nature will assist him to do, if he views it rightly through the glass of Scripture. Our blessed Lord himself, in the days of his flesh, looked upon the flowers around him, with as deep and intense a feeling of admiration as any of his followers are capable of expressing: "Consider," said he, "the lilies of the field, how they grow; they toil not, neither do they spin: and yet I say unto you, that even Solomon in all his glory was not arrayed like one of these. Wherefore, if God so clothe the grass of the field, which to-day is, and

to-morrow is cast into the oven, shall he not much more clothe you, O ye of little faith?" (Matth. vi. 28—30.) What a striking comparison is this, and how beautifully is the anxiety of the disciples about their raiment reproved by a simple reference to the Divine care which is bestowed even upon the perishable productions of a day! How gentle and yet at the same time how forcible the admonition which is thus conveyed to the heart of the weak believer! In what an endearing light does the concern and sympathy of his Heavenly Father display itself towards him when he looks at the lilies, and is taught to remember that the prodigality of skill and beauty which is lavished upon them affords but a faint idea of the merciful Providence which is so constantly and so richly engaged in behalf of him, and of all his temporal as well as spiritual concerns! What a beautiful school of piety then is the Flower Garden when viewed in this light! Here let the Christian learn what flower he most resembles in the graces of his character. Here also let him learn more and more the necessity of faith in him, and conformity to his holiness, who was once the noblest flower in the garden of God's Church—the emblem of all that is pure, sweet and lovely—the pattern of all true dig-

nity and humilty—"the Rose of Sharon, and the Lily of the Vallies." (Sol. Song. ii. 1.)

Oh! how earnestly must the Christian look forward to the period when, in all the glory of his person and in all the riches of his grace, man shall every where see and admire that Saviour "who is the fairest among ten thousand, and the altogether lovely!" Then, with infinitely more satisfaction than the delighted florist now gazes upon his choicest flowers, shall the enraptured Church exclaim in the glowing language of the Canticles iv. 16, "Awake, O North wind; and come, thou south; blow upon my garden, that the spices may flow out. Let my beloved come into his garden, and eat his pleasant fruits." And then will be realized in all its glory and universality the truth of the prophecy, "The Lord shall comfort Zion: he will comfort all her waste places, and he will make her wilderness like Eden, and her desert like the garden of the Lord; joy and gladness shall be found therein, thanksgiving, and the voice of melody." (Isaiah li. 3.)

JULY.

THE CORNISH TORS.

——'The mountains, cover'd with mysterious calm,
Like thrones of immortality;—
The lordly hills that rise from earth to heaven,
And take our spirit with them.'

In the warm months of Summer, no recreation is more delightful than a visit to those high rocky eminences, which are familiarly known in Devonshire and Cornwall by the name of Tors. The transition from the sultry heat of the plains and vallies to the cool breezes of the mountain tops, is generally esteemed as a luxury; and on the summits of the Cornish Tors, a variety of interesting observations present themselves to the Christian Naturalist, which will sufficiently repay him for the trouble of climbing up their steep and rugged sides, and of visiting them even from a distance.

Whoever has looked over a map of the Counties, must have observed that both this, and the sister

County, are almost intersected by a mountainous region, the main trunk of this intersection serving almost like the vertebral column of the human body, to give stability to a structure that might otherwise seem but too slender. If the Tourist through Cornwall leaves the ancient and picturesque town of Launceston, and proceeds towards Liskeard, he will at the distance of about eight miles from the former, and about six from the latter, arrive at the foot of that chain of hills which may be regarded as the extremity of the great moor district towards the East.* On the most Southern flank of the range he may ascend the highest of these eminences, which is Caradon. Following the course of the chain, he will then successively arrive at the several Tors known by the names, 'Chees e-wring,' 'Sharp-Tor,' 'Kilmar,' and 'Hawks-Tor.' The distant view of this group of hills is from various

* Hengist, or Hingston down, again occurs at the distance of six miles due East; but Kit-hill, as the summit of this Down is called, is what Geologists term an outlier. It is a granitic elevation, 1000 feet above the level of the sea, but has no connection with either of the Dartmoor or Cornish granite chains; it stands as it were in the centre of the basin of land that interposes between these chains in an isolated position, commanding very extensive and beautiful views.

points* highly picturesque and beautiful. Indeed, it may be questioned if there is any thing either in this, or the rest of the English counties, which approximates so nearly to some of the romantic features of an Alpine ridge. When, however, the distant view of it is exchanged for that from the summit, the emotions which here take possession of the soul are something beyond that of mere admiration. Though we may not be able to exclaim with Goldsmith in his Traveller,—

> 'E'en now, where Alpine solitudes ascend,
> I sit me down a pensive hour to spend;
> And, placed on high above the storm's career,
> Look downward where a hundred realms appear;'—

Yet if we consider that this is our own country, and that the associations are all *British*, (how much is comprehended in this word!) it may perhaps be admitted that the gratification derived from the prospect outspread before us, is scarcely inferor to that which is felt when standing on the peaks of a still grander and sublimer region. From the top of Caradon, the eye surveys towards the East a wide expanse of cultivated scenery, and in the distance it catches a glimpse of

* Especially from the fields in the neighbourhood of the Parsonage of South-hill, where the greater portion of the pages of the Christian Naturalist were written.

Plymouth, the first navel arsenal in the world, with its unrivalled harbour of Hamoaze. Towards the South, the view is only bounded by the blue waters of the English Channel, and in the opposite direction, the bluff headlands of the Northern coast, and the isle of Lundy may be faintly descried in clear weather, though the distance of the latter cannot be less than forty miles. But when from the East the spectator turns to the West, the change is at once singular and impressive. Nothing is to be seen but a wide waste of dreary moors, peat bogs, and bleak hills. Scarcely a vestige of cultivation: scarcely a trace of man or his works, relieves the stern and solitary aspect of nature in this her wild and awful retreat. But for the herds of cattle which pick up a Summer's subsistence over an extensive range of course herbage, and a human form occasionally emerging from the turf-pits which are to supply a winter's fuel, all signs of vitality would here appear to be extinct. With very few exceptions, the whole region may be regarded as in the same state it was at the time of the Roman conquest, and affords, perhaps, an exact specimen of what a large portion of our island would have been to this day, without the blessings of civilization.

In thus looking out as it were from one of nature's watch-towers, and beholding on one hand the progress of national genius assisted by the bounty of Providence, with nature herself smiling upon man in her happiest mood, we seem to perceive but few vestiges remaining of the original curse upon the ground; but when we turn our back to this prospect, and look upon the other side of the picture; when we contemplate the penury of the soil, the dreary and savage aspect of these rugged moors, the desolation in short, which seems here to have tossed the rocks into the wildest forms, and to shed a cheerless aspect upon all around; we seem again to be transported to that 'elder time,' when the world and man were still writhing as it were under the immediate stroke of the fall. The sight of such a wilderness may at least serve to teach us, what nature and man might have been, as contrasted with what they really in general now are. And nought but thankfulness for the past, and hope for the future, can fail to animate us while we look around on a scene which at once presents to us an image of what man is in his state of nature, and of what he becomes under the transforming influence of Christianity.

The whole of the country which here stretches away

as far as the eye can reach, and much farther to the West and North-West, may be regarded as a truly primitive region. There is no portion of the earth's surface which has perhaps undergone less change, during the lapse of ages. On just such a scene as this might Noah have stept out of the Ark. The mighty devastations of the deluge are nowhere more visible than here. Blocks of granite of all sizes and forms, some half buried beneath the soil, others naked and bare, or covered only with the hoary lichen, lie scattered about in all directions, bearing every where the marks of a tremendous convulsion which must have torn them from their native beds, and hurled them up and down with the same facility, as a child projects his balls or marbles on the floor. Amidst these ruins of a former world, there is no spot which affords stronger evidences of the mighty agencies which must have been formerly at work here than the Tor, commonly called the 'Cheese-wring,' from its resemblance to that kind of press in which cheeses are placed to drain in this county. This rocky pile consists of several huge blocks. The upper form of these rest upon a similar number, which are so much smaller, and on every side so apparently disproportionate to sustain the weight of those

above, that it might almost seem a miracle for this column which rises to the height of thirty-two feet, to have retained its position, and to have stood the storms of so many centuries in this lofty and exposed situation.* As if to mock the puny strength of man, nature seems here to have displayed her most sportive and gigantic energies, in mimicking his architectural powers; and this, by piling into all imaginable forms the ruins of one of her own vast temples. Sometimes we see the rocks assuming the form of a colossal column, as in the instance just referred to. At other times, as in the neighbouring hill of Sharp-Tor, they are shaped into the likeness of a pyramid. Then again, as in the two remaining eminences of the chain, a striking resemblance is presented to a line of fortifications. In short, on which ever side the eye ranges,

* Dr. Borlase supposed that the Cheese-wring might have been a rude image of Saturn, which was brought to its present form by the ancient idolaters who frequented these hills. But from an attentive observation of this singular structure of rocks, I am persuaded that it is altogether a natural curiosity effected by some agency of the currents during the time of the deluge, which carried away the surrounding masses, leaving these blocks deposited just as they were in their native bed. It seems doubtful if granite is ever found really stratified. It would rather appear to occur in large masses of irregular forms, derived originally from the prismatic.

fresh matter presents itself for wonder, andthe most curious speculative enquiries. It is evident that there was a time when the huge masses which are here lying about singly, or piled together in heaps, were under the action of a tremendous current of waters, whose direction appears to have been from West to East. This current seems to have employed itself in sweeping down the summits of the granitic range, and in strewing its ruins on the Eastern declivities. Its effects are also visible in the deep vallies which have been scooped out around the sides of the Tors; and the rounded state of the rocky fragments generally, whether lying solitary, or in heaps, sufficiently attests, that like the pebbles on the sea-shore, their angles and sharp points have been much worn down both by contact with each other, and the long continued action of water in a state of agitation. Whoever has witnessed this striking scene must acknowledge that no human agency could have effected so stupendous a ruin. The works of man are soon effaced, and buried under the soil from which they spring. Babylon and Nineveh, the two largest cities of the ancient world, have been wholly obliterated. Their exact site is now scarcely known, and the ruins of more recent cities are fast hastening away to the same all-entombing

sepulchre, which is reserved for man and his works. But not so is it with the wonders which we are surveying. No lapse of the world's ages, though they might be prolonged to a million years, would serve to efface, or to remove the awful vestiges of that creating and destroying hand, which here present themselves. Standing upon these indelible monuments of omnipotent agency, we seem to catch the murmurs of that swelling ocean which gleams in the distant horizon, and tells us of a period when it rolled its mighty surges over these inland summits. We are thus affectingly reminded that the same dread power which turned back their overflowings, though not, however, until they had left behind them sufficient evidence of his desolating wrath, is the Being whom man still continues to provoke by his obstinacy and rebellion; the Being "who weigheth the mountains in scales and the hills in a balance," and before whose presence, when he cometh a second time to judge the world in righteousness, the solid rocks shall flow down, and be "molten under him, as wax before the fire." (Micah i. 4.)

Here then is a school in which the sceptic and the unbeliever might learn much wisdom. In the midst of the rugged scenery of the Cornish Tors, many a whole-

some lesson may be taught in unison with reason and revelation. Here the evidence of the most terrible event in the world's past history, stands graven in imperishable records. As certainly as we conclude that some great city has been overthrown, where we see the plains strewed with fallen pillars, and the fragments of man's art, so may we point to the granite crags, with their wondrous piles, and the huge boulders which strew these hills and the adjacent vallies, as evidences that the wrecks of a fallen world's greatness are here,—monuments alike of man's guilt, and of the stroke of an avenging Deity.

It would seem, however, as if from a very early period of history, the Cornish Tors had been the resort of those who were in some measure enabled to appreciate the sublime and awful in the works of God. That the Druids once held their assemblies on these heights, has been commonly believed. The vicinity of the remains of the supposed Druidical circle, termed the Hurlers, which stand at a short distance from the Cheese-wring, has been considered as sufficient to place this conclusion on a sure foundation. The rock-basins,*

* Some Geologists have supposed that these remarkable excavations, are the result of the Granitic substances reduced

or circular excavations, which are formed on the tops of many of the granite masses, and especially on the tops of the Wring, are also viewed as corroborating the fact of Druidical rites having been here formerly celebrated. Whether these conclusions are not fanciful, and whether we may not rather suppose that the relics referred to belong to a still more ancient, and perhaps patriarchal period,* it is impossible to determine. Certain,

* It has been, perhaps, too hastily concluded that the stone circles of ancient times, are of Druidical origin. The Druids, as their name imports, worshipped in groves of the oak. That such groves once flourished on Stonehenge, and the heights of the Cornish Hills, seem very improbable. There is a better reason for supposing that all these venerable specimens of an ancient period of worship, were temples used by the original tribes that peopled this island, either Celtic or Gothic. The custom of erecting stones to consecrate a place was as early as the patriarchs, (see Gen. xxviii. 18, Joshua iv. 20—24,) and such stone structures of different kinds are found in almost every country of the world. It is probable that they are the earliest relics of the worship of Baal, or the Sun, as the Lord of the heavenly host.

to a state of disintegration through the decomposing tendency of the felspar. But if this were the case these hollows or basins would be much more common than they are. They are most probably artificial, and were to the ancient religionists of these hills what our baptismal fonts are now. I have seen some of them of the size and form of a church font, and in the height of summer nearly filled with rain water.

however, it is, that religious worship of some kind was anciently performed on these hills. These wild solitudes might have been selected for this purpose, either to promote a feeling of mystery or terror, or with a due veneration for that which is most grand and awful in the works of the Divinity. If, as some have supposed, the worship of the host of heaven was that which made the devotees of this ancient idolatry to fix upon those elevated spots, which commanded an uninterrupted view of the Sun, and Moon, and Stars, in their varied courses, then we have only a remarkable instance of the manner in which a taste for the sublime and beautiful of God's work may be so perverted, as to lead to the idolatry of the creature, rather than the worship of the Creator. Certainly, a finer observatory than the tops of one of the Cornish Tors could hardly have been selected. It is worthy of observation that in an age of superstition, no pains, nor self-denial, were deemed too great to obtain the privilege of holding intercourse with the Deity. We have a proof of this in the many extraordinary monuments of antiquity which are yet remaining. The works ascribed to the Druids in the Northern regions of Europe; the temples of Elora in the East, and the Pyramids of Egypt in the South, all

alike bear testimony to the fact that some mighty impulse of religious zeal once animated the multitude in the execution of works which are now considered as almost superhuman.* It would be well if something more of this enthusiasm in the cause of God pervaded the mass of those who are now called Christians. We should neither then want places of public devotion, where there is a superabundant population, nor would those which are built lack a due attendance of worshippers. If more of the feeling which led our Cornish ancestors to these hills, although to celebrate a superstitious and perhaps idolatrous worship, were diffused through the community at large, we should see less of that spirit of indolence which is so prevalent in regard to the public homage which is due to the Almighty. It may be that

* No mere exertion of arbitrary power acting upon the multitude could have effected these wonders. The supposition is altogether absurd. We might as well suppose the magnificent edifices of what are termed the Gothic ages, were the result of the despotical will of the Prince and the servile state of the people. But history confutes this supposition, and leaves us no alternative but that of concluding that the labor employed in these structures was *voluntary*. What a strange reflection is it that to *superstition* we owe those monuments, which *true religion* finds itself now too feeble to imitate, and this even with a far greater population!

those who have formerly frequented their temples on these Tors, will "rise up in the judgment," and condemn those who have deserted their churches in the plains.

It can scarcely be doubted that one design of the great Author of Nature, in affording to man the privilege of ascending such heights as these, was to give him a proportionate elevation and enlargement of soul. Man has not wings to fly upwards as a bird, and if his view were always bounded by level plains, he could have had comparatively, but a very narrow glimpse of the divine works; and his ideas of them must have been therefore much more mean and contracted than they now are. One of the distinguished Poets of the day has embodied this idea in a remarkable character, whom he describes as

'A Herdsman on the lonely mountain tops.'

Taking occasion to shew how this occupation had enhanced his views of the word, as well as the works of God, he has the following lines:—

'O then how beautiful, how bright appear'd
The written promise: early had he learn'd
To reverence the volume that displays
The mystery, the life which cannot die:

But in the mountains did he *feel* his faith,
Responsive to the writing, all things there
Breathed immortality, revolving life,
And greatness still revolving; infinite;
There littleness was not; the least of things
Seem'd infinite; and there his spirit shaped
Her prospects, nor did he believe, he *saw*.
What wonder if his being thus became
Sublime and comprehensive! low desires,
Low thoughts had there no place.'—*Wordsworth*.

This picture is well drawn, and depicts the sensations which a well regulated Christian mind must derive from viewing the works of God as they are exhibited upon the grandest scale. It is when man climbs nearer to the heavens, by these stairs which the Divine Architect has provided for him, that his thoughts and desires begin to acquire something of the character of celestial magnitude. A new sense of the vastness of the works of God is opened. Standing in the midst of such a scene, the sentiment of the great Origen seems to be fully experienced: 'In this solitude the air is purer; heaven nearer; God more intimately present.' Nor is the exclamation of Seneca here less appropriate,—'O how contemptible a thing is man, unless he raises himself above human things.' The mountain top does indeed seem to furnish a happy image of the pious

soul exalted to a state of high moral freedom, and placed beyond the reach of those 'low-thoughted' and grovelling cares which occupy so large a share of the lives of men in general!

Well may the Poet of the Night Thoughts, revolving the character of the good man in this point of view, exclaim,—

> 'Some angel guide my pencil, while I draw
> What nothing less than angel can exceed,
> A man on earth, devoted to the skies,
> Like ships in seas, while in, above the world.
> With aspect mild, and elevated eye,
> Behold him seated on a mount serene,
> Above the fogs of sense, and passion's storm;
> All the black cares and tumults of this life
> Like harmless thunder, breaking at his feet,
> Excite his pity, not impair his peace.
> Earth's genuine son, the sceptic, and the slave,
> A mingled mob, a wandering herd, he sees
> Bewildered in the vale.'

In the economy of nature, mountains are designed to answer many important uses. They serve not only as the boundaries of nations and tribes, but as a friendly shelter to protect the neighbouring lands, by breaking the violence of certain winds. But, perhaps, one of their most beneficial purposes is to condense into clouds those vapours which might otherwise pass

over the lands, without imparting to it their watry treasures. Thus they act as alembics, to distil, to cool, and to amass those fluids of the atmosphere which are to be dispersed in springs and rivers. They may be considered as the reservoirs of nature, especially in those countries where the summits of the mountains are covered by considerable quantities of snow during all or a greater part of the year. Had there been no mountains, it is probable that we should have been exposed to the miseries of a soil alternately parched, or swamped. The clouds would descend in rain upon vast tracks at once, or pass over them, without descending at all, as they do over the great and level desart of Africa. Further, it must not be overlooked, that mountains are generally the repositories of the mineral kingdom; of this the Cornish Tors are a striking example. The whole range of hills which we are now contemplating is traversed by numerous veins of tin, copper, and other of the more valuable metals. Mining operations are here carried on, generally upon the declivities of the hills, and at the places where there is a junction between the slaty and granitic strata. Thus it is that these rocky ridges of the earth's surface, fulfil many important ends in its economy. Stern, rugged

and cheerless as they may appear in themselves, we should sadly mistake did we conclude that they are a blemish in the works of God. His wisdom is here as elsewhere apparent in making all things subservient to the wants of man, and even to the most inanimate parts of the creation, the mountains and hills to minister to his praise. (Psalm cxlviii.)

Many, indeed, are the scriptural associations which connect themselves with mountains, and some of them are in the highest degree interesting. Nor is this a matter of surprise, when we know that Palestine was a country richly diversified with hill and dale; not however, be it observed, of a mountainous character throughout, like Switzerland, but more perhaps, resembling the Highlands of Scotland, and what the district of the Cornish Tors would be with a richer soil and a warmer climate. Many of the most remarkable events of the Old and New Testament took place on mountain heights, and these not much greater in elevation than some of the highest hills in Devonshire and Cornwall.*

* For example, mount Carmel, which is about 2000 feet high, some say 1800 feet. Mount Tabor about a mile. This is probably the highest of the mountains of the Holy Land, with the exception of mount Lebanon, which belongs rather to Syria. The highest land in Cornwall is Brown-willy, 1368 feet; but

A passing glance at the most striking of these will shew to what an extent, the mountainous scenery of the Holy Land has been the theatre of some of the most memorable deeds in man's history. On a mountain it was, according to the opinions of the most illustrious critics, that the Paradise of our first parents was situated. On a mountain, most probably, Noah builded the Ark, and we know that it was upon mount Ararat that it rested, when the deluge had subsided. On a mountain in the land of Moriah, Abraham offered his son Isaac as a type of the crucified Messiah. On a mountain, the law was given to assembled Israel, and Sinai and Horeb are still visited as hallowed spots, which once blazed with the majestic presence of a descended Deity. On a mountain, Moses and Aaron look their last farewell of the tribes whom they had brought up out of the house of bondage. Aaron died upon mount Hor, and Moses from the top of Pisgah cast his eyes over the goodly prospects of the promised land, and then expired. Elijah, upon mount Carmel, vindicated the honour of Jehovah in the presence of the priests of Baal, and produced a triumphant token of the

some of the Dartmoor hills reach nearly to the elevation of 2000 feet.

greatness of Israel's God in the descent of the holy fire. Upon the sacred mount of Horeb was the same prophet privileged to stand, while the Lord passed by, and manifested his glory in the "earthquake, the fire, and the still small voice." On a mountain did Solomon build that magnificent temple, which was to perpetuate the worship of Jehovah to the times of the Messiah, and to be honoured by the presence of the Msssiah himself, as the Lord of the Temple, and the Messenger of the New Covenant. And on a mountain within sight of this, was that Cross erected, which was to open the gates of the heavenly Temple to all true believers. The Saviour himself discovered no small attachment to those places, which were consecrated by so many affecting and awful associations. His favorite haunt for solitary prayer and holy meditation was a mountain. All the chief scenes of his life, as far as they are recorded, happened in mountainous places. From his infancy he breathed the air of the mountain hills; for Bethlehem, where he was born, and Nazareth, where he was brought up, were both situated in some of the most elevated districts of the Holy Land. The rock of Rimmon, (Judges xxii. 45. 47,) or mount Quarantania, is believed to have been the scene of our

Lord's temptation, and the spot where Satan affected to shew him all the kingdoms of the world, and their glory. Mount Tabor was without doubt signalized by the splendid event of his transfiguration; and within sight of this, on the mount of the Beatitudes, the multitude assembled to hear him pronounce that most beautiful summary of moral duties from which its name is derived. On mount Calvary, the Redeemer expired, and from mount Olivet he ascended to heaven. Finally, in the day when Israel's desolations are to be repaired, his feet shall again stand upon this mountain to execute the wonders of the Millenial age. (Zech. xiv.) And in that day the mountain of the Lord's house, as again erected upon mount Zion, shall be exalted above the hills, and all nations shall flow unto it. (Isaiah ii. 2.) At that period which will be pregnant with mighty events to the Church of God in general, and to the world at large, it seems probable that Paganism, Mahometanism, and Popery shall every where receive a fearful overthrow, as the Prophet Isaiah declares, ii. 18. They who have been worshippers of idols shall cast them to the moles and to the bats; and so confounded shall they be with the fearful judgments around them, that "they shall go into the clefts of the rock,

and into the tops of the ragged rocks, for fear of the Lord, and for the glory of his majesty, when he ariseth to shake terribly the earth." At that period also it seems highly probable that the terrible events of the sixth seal shall receive either a literal or symbolical accomplishment. (Rev. vi.)* And as in the day when the flood came, and the waters were every where rising, men rushed in consternation to the tops of the lofty hills for security, so in that day of terror and doom the mountains shall again be resorted to, not indeed with the hope of salvation; for the language of despairing guilt will cry to the mountains and rocks, "Fall on us, and hide us from the face of him that sitteth on the throne, and from the wrath of the Lamb; for the great day of his wrath is come, and who shall be able to stand?"

What sublimer and more solemn thoughts, then, can any part of the universe suggest, than those which are stirred up within us, as we look on the rocky scenery

* Verses 12—17. Bishop Newton and others makes this Seal refer to the revolutions which took place in the Roman world, at the time Christianity was introduced by Constantine; but I adopt the hypothesis of the learned Vitringa in the above interpretation, and prefer his Treatise on the Apocalypse to every other that I have met with on that subject.

which is now the subject of contemplation! Such scenes as these the language of sacred history and prophecy continually bring before us; and this for no idle purpose, but that our hearts and memories and imaginations may all be thereby more deeply engaged by objects which are naturally suited to excite in us the highest and noblest emotions! Who can doubt that the sacred narratives would have had somewhat less of that general interest which they now inspire, had the scenes which they describe taken place in a flat or dull country? And who does not see that the writers who describe or refer to these scenes so frequently, must have been men possessed of a genuine and ardent sensibility for those grand and romantic features of nature which presented themselves to view in the Holy Land?

Let it not be thought extravagant to suppose that the mountainous scenery of England, and even of this county, may awaken feelings as holy, and exalted, and as profitable as that to which it has become almost fashionable in the present day to perform a long pilgrimage. What, therefore, though it be not our privilege to ascend an Alpine summit from whence we may command the view of kingdoms, instead of counties?—What though it be denied to us to follow the footsteps

of the Son of God up to the summit of that very mount Tabor, from whence with him we might cast an eye of delighted rapture around the glorious panorama of scenes hallowed by every heavenly association, and by every earthly charm? We need not complain;—while the Cornish Tors, and the many other hills of our own land remain to us, we may mount their summits, and feel a gratification much more intense than theirs who look down from higher and more sacred eminences, but upon lands far less favored than our own with the blessings of liberty and true religion. Here, indeed, also may the Christian learn as well as if he stood upon a much higher pinnacle of rocks, that "as the mountains are round about Jerusalem, so the Lord is round about his people from henceforth even for ever." Here, too, may he profitably remember the might of that Being, "who setteth fast the mountains, being girded with power." And from hence he may gather that lesson of confidence in God, so beautifully enforced by the mouth of Isaiah, (liv. 10,) "The mountains shall depart and the hills be removed, but my kindness shall not depart from thee, neither shall the covenant of my peace be removed, saith the Lord."

Nor while the pious observer here gains a lesson of

faith, will he be less ready to gather up those maxims of caution and watchfulness, which the dangerous character of these rugged though lofty eminencies may well teach him. Hence he will learn not to be high-minded but to fear; and while he glances around upon these rocky wilds, and estimates the dangers of being overtaken by the horrors of night in such a region, and without a guide, he is enabled to see the evil of procrastination in religion, and to feel the force of the prophetic warning, (Jer. xiii. 16,) "Give glory to the Lord God, before he cause darkness, and before your feet stumble upon the dark mountains; and while ye look for light, he turn it into the shadow of death, and make it gross darkness."

Further, whilst surveying the solid and immoveable forms of the huge masses that crown the summits of these Tors, the Christian will not fail to be reminded of the majesty and unchangeableness of that Divine Wisdom, which was set up from everlasting, before the mountains were settled. (Prov. viii. 25.) Nor less will the sense of that Almighty power which is here so apparent, serve to awe his spirit, and excite his reverence, especially when he remembers that this power as it manifested itself of old, "beheld, and drove asun-

der the nations, and the everlasting mountains were scattered, the perpetual hills did bow." (Habb. iii. 6.) This terrible view of the majesty of God, as it manifested itself in the giving of the law to Israel, will lead him to the conclusion that nothing less than an act of the same power must have attended the greatness of the dying sufferer whose parting groan caused the solid foundations of mount Moriah to quake, and the hard rocks to be riven. Thus beholding the greatness of his Saviour, inscribed as it were upon the most durable monuments of the globe, the disciple of Christ may learn more truly to trust his Lord, knowing his strength as a sincere believer, and being assured that if a mountain of difficulties lay in his path, and he had "faith only as a grain of mustard-seed, he might say to this mountain, "Be thou removed, and be thou cast into the sea, and it should be done." (Matth. xxi. 21.)

Such are some of the topics of Christian reflection, which a visit to the Cornish Tors should suggest. In the lowly retreats of the valley, as well, indeed, as upon the mountain tops, suitable ideas of the God of nature and of grace may be formed. But things which are formed upon the largest scale of grandeur, as they seem to bring us nearer to the Great Infinite, can never

be contemplated without the highest emotions. He who has neglected when occasion offered to ascend to the high places of the earth, must want a soul fitted for the highest and noblest exercises of piety. He turns his back upon a feast which his Creator has prepared for him, and is destitute of that sensibility, which the usages of every people, and the piety of every creed, has confessed and sanctioned. We may sum up, in short, the varied and striking attractions which here present themselves in the glowing language of a modern writer: 'Mountains are the source of the most absorbing sensations; there stands magnitude giving the instant impression of a power above man;—grandeur that defies decay;—antiquity that tells of ages unnumbered;—beauty that the touch of time makes only more beautiful;—use exhaustless for the service of man;—strength imperishable as the globe;—the monument of eternity;—the truest earthly emblem of that everliving, unchangeable, irresistible majesty, by whom and for whom all things were made.'

AUGUST.

INSECTS.—THE BEEHIVE.

——— 'To their delicious task the fervent Bees,
In swarming millions tend; around, athwart,
Through the soft air, the busy nations fly,
Cling to the bud, and with inserted tube,
Suck its pure essence, its ethereal soul;
And oft, with bolder wing, they soaring dare
The purple heath, or where the wild thyme grows,
And yellow load them with the luscious spoil.'

To whatever part of the works of God we turn our attention, there is much to draw forth feelings of wonder and admiration. But perhaps if we could look through nature with a more intelligent eye than we possess, we might discover even higher cause for astonishment among the little than the great things of creation. The mighty Oak, which has braved the storms of centuries; the huge Mountain, with its foaming torrents; the Sun, shedding life and heat upon a dark world; and the Moon, walking in her brightness through the midnight heavens, are instances upon a

large and extensive scale of the grandeur of creation's God. But when from such objects we turn to those small animated forms which we term insects, and which swarm in myriads through every part of the world which we inhabit, we are lost in the consideration of that endless variety of skill which the Creator has bestowed upon creatures which, though they appear, at first sight, insignificant, are in reality highly important in the scale of being. To these has been given not only a form which is "curiously and wonderfully wrought," but that peculiar faculty which naturalists term instinct. God has furnised many of them with a body, beautiful as well as curious. Some are equipped with wings of almost celestial splendor; and multitudes of them are found, when closely examined by the help of magnifying glasses, to be cased in glittering armour, and possessed of weapons or instruments which man has only invented for himself by the exercise of reason during a long course of ages.

'All their operations,' says an eminent Naturalist, 'are performed with admirable precision and dexterity; and though they do not usually vary the mode, yet that mode is always the best that can be conceived for attaining the end in view. The instruments also with

which they are provided are no less wonderful and various, than the operations themselves. They have their saws, and files, and augers, and gimlets, and knives, and lancets, and scissors, and forceps, with many other similar implements, several of which act in more than one capacity, and with a complex and alternate motion to which we have not attained in the use of our tools.' 'Nor is the fact so extraordinary as it may seem at first, since "He who is wise in heart, and wonderful in working," is the inventor and fabricator of the apparatus of insects, which may be considered as a set of miniature patterns drawn for our use by a divine hand.'*

The same author observes, 'In variegation insects certainly exceed every class of beings. Nature, in her sportive mood when painting them, sometimes imitates the clouds of heaven; at others, the meandering course of the rivers of the earth. Many are veined like beautiful marbles, others have the semblance of a robe of the finest network thrown over them. On many, taking her rule and compasses, she draws with precision mathematical figures, triangles, squares, circles, &c. On others, she pourtrays with mystic hand what seem like

* Kirby and Spence's Entomology.

hieroglyphic symbols, or inscribes them with the characters of various languages; and what is more extraordinary, she has registered in others figures which correspond with several dates of the Christian æra. Again, to some nature has given fins like those of fish, or a beak like that of birds; to others horns; the bull, the stag, the rhinoceros, and even the unicorn have in this respect many representatives among insects,'

'Insects also,' says this writer, 'may with very little violence be regarded as symbolical of beings out of and above nature. The butterfly, adorned with every beauty and every grace, borne by radiant wings through the fields of ether, and extracting nectar from every flower, gives us some idea of the blessed inhabitants of happier worlds; of angels, and the spirits of the just arrived at their state of perfection. Again, others seem emblematical of a different class of our earthly beings, when we survey their horns, spines, &c. the dens of darkness in which they live, the impurity of their food, their cruelty, the nets they spread, and the pits they sink to entrap the unwary, we can scarcely help regarding them as aptly symbolizing evil demons, the enemies of man, for their crimes and vices driven from the regions of light into darkness and punishment.'

The habits displayed by insects are, in numerous instances, so curious and wonderful, as almost to surpass the efforts of reason; while the structures they erect are often so stupendous in their bulk in proportion to the size of the animal, and built with so much skill as to put to shame the greatest monuments of power and genius. The silken tent in which many caterpillars live and undergo their change, is a more striking object than the palace of a king; and the Beehive is a greater wonder than the Pyramids of Egypt; for in the operations of the insect tribes, we can trace far more clearly and directly the impress of a divine wisdom directing all their movements. We see the Creator's skill upon a small and reduced scale, but it is still the same—infinite in littleness as in greatness. We are still called upon to mark, with wondering eyes,

> 'The unambiguous footsteps of the God
> Who gives it lustre to an insect's wing,
> And wheels his throne upon the rolling worlds.'

As an insect well known to all, and remarkable for its skill, we shall select by way of illustration the Honey Bee. At the present season, the habits of this interesting little creature come under our daily observation. Whenever the sun shines, we may see him

winging his way over the fields and gardens, alighting upon every favourite flower, and drinking from each a portion of their nectar. For this purpose the Bee is provided with a most singular apparatus. Its tongue is so constructed as to penetrate into every recess of the flower where the honey lies, and this is received into a bag capable of great inflation, previous to its being swallowed and consigned to the honey stomach. Its thighs are also so formed as to be capable sometimes of carrying home to its hive a load of the pollen, or yellow dust of flowers, which is necessary for the food of the young grubs; and at other times for the collection of a gummy substance called propolis, which is used as a cement for various purposes connected with the hive. This substance which is collected generally from the poplar, birch, or willow is used to stop up the chinks of the hive, but sometimes it is employed by the Bees in a still more ingenious manner. 'They are extremely solicitous to remove such insects, or foreign bodies, as happen to get admission into their hive. When so light as not to exceed their power, they first kill the insect with their stings, and then drag it out with their teeth. But it sometimes happens that an ill-fated slug creeps into the hive; this is no sooner perceived

than it is attacked on all sides, and stung to death. But how are the Bees to carry out so heavy a burden? Such a labour would be impossible. In order therefore to prevent such a noxious smell that would arise from its putrefaction, they immediately *embalm it*, by covering every part of the body with this propolis, or glue, through which no effluvia can escape. When a snail gets entrance into a hive, the disposal of it gives much less trouble to the Bees. As soon as it receives the first wound from a sting, it naturally retires within its shell. In this case, the Bees, instead of pasting it all over with this cement, content themselves with gluing all round the margin of the shell, which is sufficiently to render the animal immoveably fixed.

To enable them to collect this substance, and the farina of flowers, and to transport these burdens to their hives, nothing can be more curiously formed than the apparatus of limbs which has been provided for this purpose by the Creator. The middle portion of the hind legs is actually formed into a sort of a triangular basket by the aid of a margin of strong and thickly set bristles, which thus secure whatever is placed within them from falling out. Wonderful as this may appear, our wonder is increased if we follow the Bee to its re-

treat. The architectural skill which is there displayed in the construction of the hive, is well known to all who have investigated the process. The six sided cells erected to contain the honey, are exactly what a human architect would build if he were required to erect a building that should contain the largest quantity of room in the smallest possible space, and with the smallest quantity of materials. The most accurate mathematical calculations have proved this to be a fact. And have shewn that the Bee is so good a calculator as to expend no needless portion of wax upon her habitation. For that this is the most precious part of her productions, being secreted in the scales of the abdomen from the honey swallowed, and this only from the bodies of a portion of the hive, has been shewn by Huber,* the celebrated Bee Naturalist, who devoted a large portion of his life to this curious investigation.

* For most of the information we possess on the Natural History of Bees we are indebted to Huber, a native of Geneva, who died in 1831. It is a singular fact that for 40 years during which he prosecuted this study he was *blind*, and pursued his researches only by the eyes of his wife. Among other various inventions by which he carried on his experiments, was a hive which he called his leaf-hive, from its opening and shutting like the leaves of a book.

When we further see how these honey store-houses are exactly filled and sealed up for future use, it is impossible not to be struck with the astonishing instinct thus displayed, which leads them to accumulate their treasure with so much care against a period of want and repose. Equally surprising, however, is the harmony which subsists in the Beehive, whose inmates are perhaps seldom fewer than 15,000. The greatest order is preserved amongst them; for all are industrious, all know their places, and they have none of that love of change which so frequently produces so many calamities among human beings. A distinguished Poet well described them, when he thus compared them to a well ordered monarchy,—

'Creatures that by a rule in nature teach
The art of order to a peopled kingdom;
They have a king, and officers of sorts,
Where some like magistrates correct at home;
Others like merchants venture trade abroad;
Others like soldiers armed in their stings,
Make boot upon the summer's velvet buds,—
Which pillage they with merry march bring home
To the tent royal of their emperor,—
Who, busied in his majesty, surveys
The singing masons building roofs of gold;
The civil citizens kneading up the honey;
The poor mechanic-porters crowding in
Their heavy burdens at his narrow gate;

The sad eyed justice, with his surly hum,
Delivering o'er to ex-ecutors pale
The lazy yawning drone.'—*Shakespeare.*

This poetical description which was written more than 200 years ago, has been verified by observers in subsequent times in all its main particulars. It has been ascertained to a certainty from numerous experiments that every hive has a queen Bee, which is the mother of the community, and whom they follow when the hive swarms to seek a new settlement. Without a queen they can neither be made to work, nor indeed to settle any where; and the affection with which they regard her, is as full of striking particulars as indeed are all the other features of the history of this astonishing insect.

The various instincts which divine Providence has thus implanted in the Bee, will supply us with many useful and religious hints as to our conduct as rational beings, and as Christians. The industry of this little animal in collecting hon ey against a season when no honey could be obtained, may shame the indolence of that man who, however industrious he may be about the trifles of this life, makes no provision for a period when if he has not laid up a store of those good things

by which he may be accounted rich towards God, he must assuredly perish. (1 Tim. vi. 19.) And on the other hand the diligence with which the Bee examines every flower, when in search of its favorite repast, is a beautiful example of the truly active and zealous Christian who is constantly employed in his Heavenly Master's service, whose meat and drink it is to do his will, and to finish his work. He, like the honey Bee, feasts himself continually upon the riches of God's word, and extracts nourishment therefrom for himself, and the whole family of man. He is not selfish, but divides the gifts of God with others; communicates freely a portion of what he gathers; bears cheerfully his burdens; is a loyal subject; a good citizen; a useful and loving member of the Church to which he belongs. He also, like the tenant of the Beehive, is a wise master-builder, for he builds upon the good foundation which God has laid in Zion; raises thereupon Christ, the well ordered structure of a righteousness framed with all the beauty of spiritual workmanship; lays up in him a store of bliss against the evil day; and thus in the mean while is enabled to say with David, "The law of the Lord is perfect, converting the soul: the testimony of the Lord is sure, making

wise the simple: the statutes of the Lord are right, rejoicing the heart: the commandment of the Lord is pure, enlightening the eyes; the fear of the Lord is clean, enduring for ever: the judgment of the Lord is true and righteous altogether. More to be desired than fine gold; sweeter also than honey and the honey-comb."

SEPTEMBER.

THE CORN-FIELD.

'Here Ceres' gifts in waving prospect stand,
And nodding tempt the joyful reaper's hand;
Rich industry sits smiling on the plains,
And peace and plenty tell Jehovah reigns.'

Of all the objects which attract the eye at this delightful season, there is none of greater interest than a fine field of standing corn. The Psalmist beautifully gives vent to his feelings, and expresses the true fervor of an admirer of nature, when he observes, "The vallies

are covered over with corn: they shout for joy, they also sing." (Psalm lxv. 13.) Our blessed Lord, whilst upon earth appears to have participated in such feelings, and to have taken a deep interest in such scenes. We find him on one occasion passing through the corn-fields on the Sabbath-day, and taking advantage of the circumstances of his walk there, to instruct his disciples, and to reprove the Pharisees who accompanied him. Three of the Evangelists have recorded the fact, as if they deemed it especially worthy of notice. St. John also has described him on another occasion, as drawing one of his most beautiful illustrations of divine truth from the ripening corn-fields which surrounded that spot where he had first been conversing with the Samaritan woman. "Say not ye there are yet four months, and then cometh harvest: behold, I say unto you, Lift up your eyes, and look on the fields; for they are white already to harvest. And he that reapeth receiveth wages, and gathereth fruit unto life eternal; that both he that soweth and he that reapeth may rejoice together."

That we may imitate this custom of our blessed Saviour, let us reflect while walking in the corn-field at this season, upon the ideas which it most forcibly suggests to the Christian.

The first thing that strikes the attention amidst such a scene, is the admirable proof of design which is displayed in the plant which produces corn.—'The very structure of the stem-part,' says an ingenious observer, 'carries in it the footsteps of eminent wisdom. It is proper that this should be somewhat tall, that its spike may be sufficiently elevated above the earth; partly that its precious treasure may not be exposed to the cold vapours which in the evenings arise from the soil to a certain height; partly that it may not be rotted by too much moisture: and perhaps that the juices from the earth may be properly concocted by so long a tube, and the many secretions which lie in so long a passage. But then how difficult to support a vegetable to such a height as five feet, when it is not above the sixth part of an inch in diameter? It must be so strong as to stand, and yet not so stubborn as to refuse to bow without breaking.* Hence its Contriver has wonderfully

* Galileo, the most profound philosopher of his age, when interrogated by the inquisition as to his belief in a Supreme Being, replied, pointing to a straw on the floor of his dungeon, that from the structure of that object alone, he would infer with certainty the existence of an intelligent Creator.—Dr. Roget, in his Bridgewater Treatise, note in page 81. On vegetable Organization, he further observes: The stems of grasses

provided that it should be divided into several partitions, that each part should be strengthened by a knot; and that from each knot should proceed a covering that shall preserve the division above it. By the great strength which lies in these bands, the stem is preserved from breaking, when under the impression of the winds blowing from any quarter. Thus the growth of this important vegetable takes place. The cane-like part not appearing till all danger from the winter's cold is past; and when summer sheds its balmy influence, Providence intrusts the most precious part, and for which the other parts are all disposed, to discover itself. It is curious to observe the various compartments which are provided for every individual of the grains composing the ear; the distribution is equal, that every one of the little family may have its proper nourishment. Each has a membrane between it and the stalk, and a two-fold one outward, peculiarly to defend it where the greatest hazard lies; and all are inclosed, as with a

are hollow tubes; their most solid parts, which frequently consist of a thin layer of silex, occupying the surface of the cylinder. Of all the possible modes of disposing a given quantity of materials in the construction of a column, it is mathematically demonstrable that this is the most effective for obtaining the greatest possible degree of strength.

thorny hedge, that is, the beards, perhaps to keep off some minute vermin. The whole of this beautiful apparatus is probably intended to preserve the precious inclosure from opposite inclemencies—the scorching rays of the sun by which it may be shrunk up and withered before it is sufficiently filled, and too great a lodgment of rain or dew whereby it might be rotted.'

Another point equally worthy of notice, is the fertility here displayed. The reader need not perhaps be told, that this fertility arises in great measure from the number of different stems which spring from each plant or seed; but he may yet have to learn, that the ordinary number of these which in the case of wheat seldom exceeds four in this country, has in some instances reached to forty or fifty: and if we may credit the assertion of ancient writers, has occasionally amounted to several hundreds. Now in this fertility, there is the most evident proof of the goodness of the Creator, as adapting itself to the wants and comforts of his creatures.

As that great natural philosopher, Ray, observed, long ago in his admirable Treatise, entitled, 'the Wisdom of God manifested in the Works of Creation:' 'It is worthy the noting, that wheat which is the best

sort of grain, of which the purest, most savoury and wholesome bread is made, is patient of both extremes, heat and cold, growing, and bringing its seed to maturity, not only in the temperate countries, but also on one hand in the cold and Northern, *i. e.* Scotland, Denmark, &c. on the other in the hottest and most Southerly, as Egypt, Barbary, Mauritania, the East Indies, Guinea, Madagascar, &c. scarce refusing any climate.'*

It is not a little remarkable that the original country from whence this beneficial plant was derived is now unknown. The same may be observed of the most valuable grasses. It appears that wheat and millet, though not of the same species as now cultivated in this country, have been found in hilly situations in the East Indies.† Like the potatoe, however, of which Humboldt declares that the true original country is totally unknown; a blessing seems to have been reserved for

* On the fertility of wheat, 'Pliny remarks,' says Ray, 'that nothing is more fruitful than wheat; Augustus's procurator sent him from Africa nearly 400 ears springing from one grain, and to Nero were sent from thence 360. If Pliny a heathen could make this fertility of wheat argumentative of the bounty of God to mankind, surely it ought not to be passed over by us Christians without notice taking and thanksgiving.—*Third Edition p.* 126.

† Loudon's Encyclopædia of Gardening, p. 203.

the different species of grain which are used for the food of man, in proportion to their diffusion. Though removed far from the parent soil they do not appear to have thereby degenerated in the course of ages, but on the contrary to have become more productive, which is not the case with plants in general. What then can afford a more striking proof of the superintending eye of Providence, which in this instance has exerted so extraordinary a degree of vigilance over the beneficial cultivation of those productions, upon which so much of the temporal happiness of man is suspended!

It must not, however, be forgotten that many ages passed away before the people of this land were able to realize fully the blessings which are here now so liberally provided for them by the Great Giver of all good things. It is only within our own æra, that these blessings have been placed within the reach of the lowest, as well as the highest classes of society. The poor man has now his wheaten loaf generally as well as the rich man; and nothing can tend more fully to establish the act of the improved condition of the labouring classes generally, than this circumstance. When we recollect that our ancestors lived upon barley cakes, and that wheat was far too expensive a luxury for any but the

higher orders, we may see in the beneficial change that has taken place in modern times, a sufficient proof of our advancement as a nation, and of the favors which the bounty of heaven heaps upon us. Let us contrast those countries of Europe, as for instance Russia, and Poland, where the peasantry still live upon their hard black rye bread, with that of our own, where such food is very rarely to be seen; or let us cast our eyes over those numerous tribes of the earth where the bulk of the inhabitants still live upon their *roots*, their *acorns*, or even their **baked balls of clay*; and we shall need no further argument to prove that England is the happiest country upon the globe, and its constitution, with all its imagined ills, the fruitful source of comforts which no other nation upon earth, so richly enjoys.

There is a remarkable analogy observable between the improvements of agriculture and the growth of the grain which the fields produce at this season. The advances which each have made to perfection are very slow and gradual, and our Lord has taught

* See a curious account of the Ottomacos, a tribe of Indians living near the Orinoco, whose chief diet consists of an unctuous clay made into balls and baked.—*Humboldt's Tubleaux de la Nature.*

us to derive from this a lesson of spiritual instruction. "So is the kingdom of heaven, as if a man should cast seed into the ground; and should sleep, and rise night and day, and the seed should spring and grow up, he knoweth not how." (Mark iv. 26.) Hereby intimating to us that the progress of religion both in the world and the human soul, is not as some suppose sudden and instantaneous, but rather resembles seed committed to the ground, which after a few successions of day and night, imperceptibly vegetates: peeps at length above the surface; then rises higher and higher; and, at last, ripens into the more perfect form which it must assume, before it is gathered into the final storehouse.

There is another idea of equal importance, which suggests itself by the lovely scene under contemplation. Those beautiful ears of corn which now in all the majestic modesty of nature, bow to every passing breeze, but a few months since would have covered, if outspread, only a few feet of ground, and were but a mass of dead matter. But what are they now? Now, indeed, they are full of life and splendour; and would appear to him who should attempt to number them, numerous as the drops of morning dew, or countless as the sands upon

the sea-shore. How glorious an emblem is this of the resurrection of believers at the last day, when this corruptible shall put on incorruption; and when the narrow limits that now confine the sleeping dead, shall pour forth its myriads of glorified bodies who have shaken off the bondage of corruption, and who are ready at the blast of the Archangel's trump which shall summon them to the presence of their Father and their God, to bow in humble adoration, and to cast their crowns before the throne of him that liveth for ever and ever!

But to return from such musings to the scene immediately before us. If we ask the agriculturalist to tell us how the change just alluded to has been effected, he will probably reply, that his promising crop is the result of favourable weather, of good soil and of rich manure. Surely, however, if we would view this scene aright, we must go at least one step higher, and acknowledge the Divine hand exercising its constant control and superintendance over all these its inferior agents. For as "man doth not live by bread alone, but by every word that proceedeth out of the mouth of God," so also the ground does not yield its increase unless the blessing of God be upon it. Hence we

read, "A fruitful land maketh he barren, for the wickedness of them that dwell therein;" (Psalm cvii. 34;) and, on the other hand, it is observed, "Thou visitest the earth, and waterest it: thou greatly enrichest it with the river of God, which is full of water; thou preparest them corn when thou hast so provided for it." (Psalm lxv. 10.) How easily then may our national or individual sins frustrate all the effects of industry, by provoking God to make the "heavens as brass, and the earth as iron;" or to curse the ground with that original sterility which it contracted by the fall of our first parents. This curse, it should be recollected with gratitude, has been greatly mitigated in the lapse of years, through the mercy of that God "whose thoughts are not as our thoughts, nor his ways as our ways." The ground does not now bring forth thorns and thistles merely: nor is man reduced to the necessity, as Adam was, of eating the herb of the field. Nevertheless, we must not forget that the curse was so far fulfilled as to exemplify, in the most striking manner, the evil consequences of sin. The early history of man has in most countries been that of a wild wandering savage. Such was the state of Britain, (at least the far greater part of it,) before

its conquest by the Romans. It was a land of forests and of bogs, whose inhabitants trusted to that scanty and precarious mode of existence which was to be obtained by the chace, or by the feeding of cattle, upon some of the more luxurious spots. For the introduction of all the more valuable arts of agriculture they were indebted to the Roman Conquerors, who to their praise left behind them here, as in other lands, a knowledge of this and many other useful arts. Thus by the overruling Providence of God, that lovely plant, which is every where the symbol of plenty and prosperity, was destined to spring up in the iron footsteps of war. Rome was then the mistress of the world, as Great Britain is now; and it may well become the latter to consider whether she has conferred upon other lands where she has obtained an ascendancy, the same advantages that her heathen conquerors of old did. This is a question which has been too much forgotten among us in past times. It must be confessed, that as a nation, no efforts have been made on a scale commensurate with our national greatness, to benefit those spiritually, who have been brought under our yoke. Though professing a religion far superior to every thing that ancient Rome could boast of, we have

shewn an apathy to its extension, which our Roman Conquerors would have been ashamed of, as if we feared that too much religious zeal would weaken our conquests, or as if we had arrived at the conclusion that the religion which is an acknowledged benefit to ourselves, would be no benefit to others. This has been the case, especially with regard to India.* Happily, however, there are signs that the spirit of the nation is at length awakening from its long trance of apathy and selfishness. And we trust the day is not far distant when as a people we shall roll away from us this reproach of being indifferent to the spread of our religion, and of being more anxious to unfurl the flag of commerce, than the blood-red banner of the cross.

It is a consideration for those especially who now share in the blessing of a plentiful harvest, whether they are sufficiently sensible of their obligations to the "Lord of the harvest." The bounty of heaven, which

* We allude to the custom of collecting a tax from pilgrims going to the shrine of Juggernaut, and the employment of British Soldiers to do honour to the idolatrous festivals of the Hindoos, by military attendance and parade on these occasions, as well as to the very small and disproportionate aid which has been granted by the British Senate, to the extension of Christianity in this the most important of its colonies.

has so long been poured down upon this island demands an adequate return. England, we believe, has been permitted to take its high rank among the nations, in order that like Israel of old, the ark of God's testimony might be preserved within her, and that her name might be a tower of strength to the cause of Protestant Christianity throughout the world. If by any infidelity to her heavenly master, she betrays the sacred cause with which she is entrusted, then also it is no difficult matter to predict that her rank and glory will soon be forfeited. "The kingdom will be taken from her, and given to a nation bringing forth the fruits thereof."

It should also be remembered, that combining in one as this country does, the most valuable gifts of agriculture and commerce, it possesses advantages which no nation has hitherto enjoyed; at least in the same degree. Truly it may be said of us in the language of the Seer of old, "How goodly are thy tents, O Jacob, and thy tabernacles, O Israel." "As the valleys are they spread forth, as gardens by the river's side, as the trees of lign-aloes which the Lord hath planted, and as cedar trees beside the waters.* He shall pour the water

* This metaphor seems to refer to the practice of profuse

out of his buckets, and his seed shall be in many waters, ... and his kingdom shall be exalted." (Num. xxiv. 5—7.)

With equal propriety might the departing Moses have said of England, as of Joseph, could he have viewed it in the present century, "Blessed of the Lord be his land, for the precious things of heaven, for the dew, and for the deep that coucheth beneath, and for the precious fruits brought forth by the sun, and for the precious things put forth by the moon, and for the chief things of the ancient mountains, and for the precious things of the lasting hills, and for the precious things of the earth and the fulness thereof, and for the good will of him that dwelt in the bush: . . . . .

irrigation, which is necessary at certain seasons in dry oriental countries, especially for the young crops of rice. The extensive and prosperous increase of the Jewish nation, is the fact intimated by this highly figurative language. Waters are the appropriate emblem of *progeny*. See Isaiah xlviii. 1, Psalm lxviii. 26, Prov. v. 5—18. With this interpretation the Greek interpreter, and the ancient Targumists, agree. But water is the symbol of the gospel, and of the Holy Spirit's operations. See John iv. 14, and vii. 38, 39. As then the state of ancient Israel was typical of the Christian Church, there is good reason for supposing that this prophecy, like that of Isaiah xii. 3, is to be spiritually understood of the pouring forth of the refreshing waters of Christianity, *through the instrumentality of a Jewish race.*

His glory is like the firstling of his bullock, and his horns are like the horns of unicorns; with them he shall push the people together to the end of the earth." (Deut. xxxiii. 13—17.)

Would to God that this splendid picture of national prosperity might awaken suitable feelings of gratitude in every British heart! Then, indeed, a walk through the corn-fields at this season would not be in vain. For it would serve to set before us an image of that fertility and glory which adorns and dignifies our land; and we should here gain that high incentive to the great work of spreading the gospel, which is a duty especially belonging to the inhabitants of this favored isle. There is, indeed, no stronger argument for the circulation of the Holy Scriptures, and for the labours of Missionary Societies, than that which is supplied by the smiling scenes of plenty around us. For what are these but a type of that harvest of the church of God, which must at length be gathered in from every quarter of the globe. And truly it may be said that the fields are already "white to this harvest." Though the labourers have as yet been but few and far between, much progress has been made in preparing the way for final success; and were the progress smaller than it is,

there would be no ground to mistrust the Divine promises. If forty centuries were suffered to pass away before the Sun of Righteousness arose, why should we wonder that the spiritual harvest of the earth is not yet quite ripe, after the lapse of only half this period? This event, however, like every other will come in its appointed season. The Divine promises may be delayed, but cannot be frustrated. As surely as the grain ripens in the autumn, that period is rapidly hastening to its completion when the whole earth shall be "as a fruitful field which the Lord hath blessed.' It is the privilege of true faith to wait for the vision, though it tarry long, and to adopt the triumphant persuasion of the dying lawgiver of Israel. "There is none like unto the God of Jeshurun, who rideth upon the heaven in thy help, and in his excellency on the sky. The eternal God is thy refuge, and underneath are the everlasting arms; and he shall thrust out the enemy from before thee; and shall say, Destroy them. Israel then shall dwell in safety alone; the fountain of Jacob shall be upon a land of corn and wine." (Deut. xxxiii. 26.)

But the corn-field suggests other ideas of an equally interesting kind. It is our Lord's own emblem of the

Church, as at all times existing in the world. The crop before us, though strong and heavy, is not free from weeds. And thus the Church of Christ in the present day, though promising and prosperous, is not devoid of false professors. The tares* of Judea are unknown in this land; just as many of the heresies of ancient times are no longer apparent. But there are other tares which still mingle whith the corn, and cannot be separated from it without injury to the crop. There is the shewy weed, aptly resembling the gay —the carnal professor, but known and distinguished by every eye from the true follower of Christ. There are also weeds less showy, but still more obnoxious;

* The word Zizania, rendered Tares, (Matt. xiii. 25,) is a Syriac word and describes some kind of grain which was either a spurious kind of corn, or some plant that was noxious to the growth and purity of the crop. It is quite, however, a matter of uncertainty what plant is meant. Some have contended that it is the bearded Darnel, or Lolium temulentum, so called from its supposed intoxicating qualities. We are equally at liberty to suppose *all* the English translations of the bible to be right, which suppose a species of vetch to be here alluded to; for by the word Tare our language has always designated, not Darnel, but various species of vetches that abound in corn fields. The "binding in bundles" seems to sanction this meaning; nor does the danger referred to Matth. xiii. 29, interfere with this idea. The danger might arise not from the similarity of the two plants the wheat and the tare, but from the process itself.

fitly representing the barren professor, having a name to live but spiritually dead. Again, there are others so much like the corn itself, that none but an experienced observer could discern the difference between them; forcibly presenting an image of those whose life and conversation so outwardly resemble the true Christian, that none but the eye of an omniscient Judge can detect their insincerity.

Lastly, In every corn-field there are plants of sickly as well as of a luxuriant appearance, supplying a fit emblem of the various characters which compose the true Church of Christ. Some indeed are stunted in their growth by various causes; others ripening into the full measure of the stature of Christ, having received a larger measure of the Spirit of all grace, and enjoyed a more copious effusion of the beams of the Sun of Righteousness. Yet all these must be permitted to mingle together till the harvest. Each have their separate uses; and as the wise husbandman is content and thankful if the weeds do not overpower the corn, so the wise Christian will be grateful to God that errors both in doctrine and practice are not more abounding than they are, being satisfied that in the final issue and separation of the tares from the corn,

there will be nothing to complain of; but on the contrary, that the purposes of God will work their way through all human hypocrisy and weakness, so as to fulfil the truth of the gracious promise, "As the rain cometh down from heaven, and returneth not thither, but watereth the earth, and maketh it bring forth and bud, that it may give seed to the sower and bread to the eater; so shall my word be that goeth forth out of my mouth; it shall not return unto me void, but it shall accomplish that which I please, and it shall prosper in the thing whereto I sent it." (Isaiah lv. 10.)

HARVEST HOME.

HARVEST HOME! What delightful sensations are awakened by these words! To the eye of the Christian Naturalist, the scenes which have just been passing before him—a rich and splendid harvest safely gathered in—have presented a lovely mirror, in which he has been enabled to contemplate anew some of the noblest

of the divine perfections. For what are all the bounties of our God, as displayed in this lower world, but so many varied manifestations of himself—so many different expressions and shadows of his character—designed to arrest the attention, and kindle the devotion of thoughtless, cold, insensible man!

> 'These are thy glorious works, Parent of good,
> Almighty! Thine this universal frame:
> Thus wondrous fair; thyself how wondrous then;
> Unspeakable: who sitt'st above these heavens
> To us invisible, or dimly seen
> In these thy lowest works; yet these declare
> Thy goodness beyond thought, and pow'r divine.'

Such, most reasonably, may be our reflections at the present season; when every stack of corn is a visible memorial of the truth of God's word,—"While the earth remaineth, seed time and harvest, and summer and winter, and day and night, shall not cease. (Gen. viii. 22.)

More than 4000 years have rolled away since this gracious promise was given to Noah, and every returning Harvest Home is an additional confirmation of the divine faithfulness. Partial failures there may have been in some years and in some countries, but when or where did the promise fail in its general intentions of

mercy to the human race. If occasionally, to remind us that we live in a diseased world, a blight has been permitted to fall upon the fruits of the earth, how soon has the evil been again repaired, how rapidly has the serpent's head been crushed when it was about to sting, and an additional proof afforded of the Divine goodness and forbearance.* As in ancient Egypt the seven years famine, came not till it was provided for by a seven years plenty, so we shall still find that no divine judgment has at any time overspread the fruits of the ground without an abundant compensation,

* 'The annual riches given anew to mankind every summer, by the continued produce of the earth, would amaze us by their amount, if the whole could be ascertained and calculated. A few instances will imply it. The yearly produce of France in 1828, on an average of 4 years, was 21 millions of quarters of wheat, and 32 millions of other grains. The annual value of all the grain in Britain, as computed in 1827, has been estimated at 112 millions of pounds sterling. Few cultivate their soil as they ought, but with all their indolence or ignorance, still enough is raised from it all over the world to sustain a population of 800 or 1000 millions, who are now living on the globe. Now if each inhabitant of it, on an average, required only the value of £10. produce for his yearly support, the earth is on this calculation yielding annually to the human race, from its vegetable system, either 8 or 10 thousand millions of pounds sterling in the feeding articles only, and this with a constancy that never fails in its general sufficiency,'—*Turner's Sacred History of the World, v. 1, p. 147.*

either before or after. If Divine Providence has held in one hand a vial of wrath, in the other it has always displayed a cornucopia of mercy, and nothing can afford a stronger proof of this than the fact that those countries have been progressively increasing in population and wealth, who have esteemed the earth's gifts their best inheritance, and thus made themselves pensioners upon the bounty of heaven.

When we observe the certainty and regularity with which this and every other season comes round, it is incumbent on us to remember, that this arrangement is governed not only by the Divine laws, but is dependent on the Divine promise. We gain an argument not only for the power and goodness of the Deity in the unfailing fertility of the earth at a particular season, but one which is equally strong to establish the veracity of the Divine word. How strange is it then, that so many continually think and act as if they deemed it possible that the great and eternal Jehovah, "with whom is no variableness nor shadow of turning," could break his word! And what infatuation is this which tempts men, in spite of his express declarations, to gainsay or doubt his purposes, without reflecting that if God has been faithful in lesser things—in things which concern the

perishable body only—he must be at least equally so in things which relate to the immortal soul that was created after his own image! The harvest just gathered in, is, if we believe the record that he has given us, a yearly emblem of the final judgment at the end of the world. So our Lord himself tells us, (Matt. xiii. 39.) But how many are there who by their conduct shew their disbelief of that great event? whose profane lips, whose unholy lives, and whose impenitent hearts, continually give God the lie, and seem profanely to ask, "Where is the promise of his coming?" "But God," as even unrighteous Balaam was constrained to confess, "Is not a man that he should lie, nor the son of man that he should repent." To the unbeliever, this is a truth which if he ever thinks of it must strike terror into his soul; for every Harvest Home shall at last rise up as it were in judgment, and condemn him for not having listened to that voice, with which it so loudly proclaims the eternal truth of a sin-hating and a sin-avenging God.

But what says the same voice to the humble and renewed Christian? It may, indeed, convict him also, at the present time, of some remaining unbelief and mistrust. It may, perhaps, whisper a doubt, whether

even *he* has always sufficiently relied upon the mercy and faithfulness of a God, who is pledged by promise, by covenant and by oath, "to make all things work together for his good;" and he may feel humbled by the reflection, that in seasons of difficulty and temptation he has but too feebly felt the force of that declaration, "I will never leave thee nor forsake thee." Yet although the return of the present season may serve to reprove these doubtings of a mind compassed with infirmity, and to call forth with more fervour that devout supplication of the disciples of old, "Lord increase our faith;" still, upon the whole, it affords to the sincere Christian matter of consolation, rather than of reproof. To him it is the type and pledge of that glorious day, when those "who have been redeemed from the earth" shall be safely gathered into the final granary of their Father and their God. And there are many things in the earthly Harvest Home, which seem to point to the heavenly Harvest Home in which he hopes to share. For,

1st. In what a soil have these fruits, which the farmer beholds with so much pride and joy, been long growing; and who could naturally have supposed that from "the filth and offscouring of all things," a crop of

purest grain should have been reared and nourished to its splendid maturity. This is, indeed, one of the greatest mysteries of the natural world; and the process of vegetation eludes the researches of the wisest philosopher. It is only from experience, that the cultivator of the fields can trace out and predict the result; and in the kingdom of grace and glory, is it not equally a matter of surprise, that man, a plant of the earth, should be destined to bring fruit immortal and heavenly?—that he should be quickened from dead works, and made a new creature in Christ Jesus;—that though he is condemned to vegetate amidst the bondage of corruption, and lives in the midst of a carnal and impure world, these things are not permitted to destroy his fruitfulness, but rather contribute to promote it, by stimulating his zeal, faith, and love to more vigorous exercises, so that "where sin abounded grace does much more abound;" thus converting and sanctifying things originally defiled to holy uses; "confounding the wisdom of the wise:" and, as in the first ages of the church, so in every subsequent period, "putting the treasures of the Gospel in earthen vessels, that the excellency of the power may be of God."

2ndly. Through what vicissitudes has the present Har-

vest Home been safely reached! When the blade was yet green, how oft did the farmer tremble while he beheld it exposed to the biting frost, or the cutting winds; and when it was advancing to maturity, how anxious did he feel lest the rust, or the mildew, or the worm should blight it, or lest it should at length be beaten to the earth by the hail or tempest. But if through all these dangers, and many more, it is now "saved," then how sublime the assurance, that this process of God's preserving power in the natural world will be no less assuredly displayed in the spiritual and heavenly world to which he looks forward! In all the stages of his earthly pilgrimage, the believer is "kept by the power of God through faith unto salvation, ready to be revealed in the last time;" and he may therefore indulge the firmest hope, that when that time arrives, he shall look back with gratitude and exultation upon all the dangers he has escaped, upon all the storms, the persecutions, the temptations, the afflictions, and the changes of this mortal life, and, like his Redeemer, "see of the travail of his soul, and be satisfied;" "Knowing that he who hath begun a good work in him will perform it until the day of Jesus Christ," he rejoices in the prospect of that day, when

it shall be abundantly manifested that the sufferings of this present time, work out for the sufferer "a far more exceeding and eternal weight of glory." Thus while the Christian beholds the joy which is now visible in the face of the agriculturist, and the thankfulness also which is, or ought to be there, he is persuaded that they who shall reap the fruits of a heavenly harvest unto life eternal, will feel a joy and gratitude as far surpassing all earthly feelings, as that music which is struck from the harps of angels, exceeds the sweetest melody of mortal instruments.

Joyful, indeed, beyond all conception and expression, are such contemplations to the godly! Unspeakable and full of glory are the anticipations of their heavenly Harvest Home to those who are sowing to the Spirit! But let us remember that the husbandman must first labour before he can be a partaker of the fruits.* (2 Tim. ii. 6.) Even a heathen historian could remark that 'they are most egregiously deceived who hope to unite

*So the Genevan Bible renders, and the rendering is sanctioned in the margin of our present Bible. The Bishop's Bible, in its marginal note on the passage, observes, 'So that the pain must go before the recompence.' The context requires this signification, rather than that which is given in the common translation.

those most opposite things, the pleasures of indolence, and the rewards of industry.' Little therefore does it become the Christian to think of expecting to reap what he has never sown. "God is not mocked." As well might we expect to gather an earthly harvest where we have never cultivated the ground, or scattered the seeds which are necessary to produce the crop, as to expect that a life of procrastinating negligence, careless indifference, or slothful indulgence, will be followed by a harvest of eternal happiness. Men can discern the necessity of making a due preparation for any of the future advantages they expect in this life, but for the life to come they seem to act for the most part as if no preparation were necessary. Hence they leave all to the miserable chances of a dying hour, or to that more "convenient season" which never arrives. Opportunities of grace and periods suitable for repentance and reformation, are thus suffered to pass away unheeded and unimproved; and too many there are who never awaken from this dream of unutterable folly, till it be too late, till standing on the brink of a dark eternity, they feel the force of that awful exclamation of despairing Israel of old, "The harvest is past, the summer is ended, and we are not saved."

OCTOBER.

THE SEA.

'And thou majestic main;
—A secret world of wonders in thyself—
Sound his stupendous praise, whose greater voice
Or bids you roar, or bids your roarings fall.'

"O LORD, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches: *So is this great and wide sea also.*" (Psalm civ. 24, 25.) From these words we may infer that the attention of the divine Psalmist was deeply arrested by a sight of the ocean; and who that beholds this object with any degree of consideration, but must be struck with its importance, if not with its beauty. The Sea is evidently the chief source of all human riches. Without the Sea, the earth must have been a barren wilderness. From the Sea the clouds are constantly supplied with those watery treasures, but for which the earth could not have yielded its increase.

Had there been no showers, there would have been no corn: and the fruits of the earth, which are yet gathering in, (at whatever distance from the ocean,) would soon have withered, but for the moisture communicated to the atmosphere from this inexhaustible fountain. Hence therefore the Sea may justly be viewed as a vast and boundless reservoir of life and blessing to the whole globe. What the heart is to the human body, the ocean is to the land—the mainspring, or pulse of the whole system; and as the former sends forth continually its crimson currents to nourish the human frame, and receives it back again after it has run its destined rounds; so also, with regard to the latter, when the fluid evaporated from it has fulfilled its purposes of watering the earth, the rivers return a portion of the precious treasure to the place from whence it came, to be again sent forth by the agency of the clouds, to the most distant extremities of that mighty mass around which the Sea rolls its waves.

The ocean is a favorite topic of reference with the sacred writers: and what mind that is imbued with any thing like a Scriptural feeling, can behold this glorious object without having his thoughts carried

upwards to that Creator who "measured these waters in the hollow of his hand," according to the sublime language of Isaiah. Yes! The Almighty Spirit it was which first brooded over the chaotic abyss when it was yet without form or void! His Sovereign word assuredly it was which pronounced the decree, "Let the waters under the heaven be gathered together into one place, and let the dry land appear!" One of the ancients of the Church, St. Basil the Great, has thus beautifully referred to this subject in his homilies on the days of creation. "Have you never reflected when seated on the margin of a spouting fountain, how comes this water from the bosom of the earth? what impels it forward? when will it terminate its course? how is it that it never dries up, and that the sea, into which all other waters empty themselves, never overflows? A single sentence will serve as a reply to all these questions. Let the waters be gathered into one place. The sea agitated by the temptests that rage over it, is often raised to a prodigious height, but the moment it touches the shore, all its fury exhausts itself in foam, and it returns into its bed.

"Oh, how beautiful is the spectacle that the sea presents, when we see it in its calmness shining like

silver; when its surface, gently ruffled by mild breezes, glows with purple and gold! when no longer breaking with violence against its surrounding shores, it seems to approach them softly, only to solace them with peaceful caresses.'

Surely we cannot sufficiently admire that simple but magnificent display of power, by which on the third day of creation, the deep retired to the places appointed for its reception, and heard the *fiat* which Omnipotence uttered, "Hitherto shalt thou come, but no further: and here shall thy proud waves be stayed." Well might the Almighty himself demand attention to this fact, and ask, "Who shut up the sea with doors when it brake forth, as if it had issued out of the womb? When I made the cloud the garment thereof, and thick darkness a swaddling-band for it, And brake up for it my decreed place?" (Job xxxviii. 8—10.) Nothing less than a feeling of amazement must seize upon us, if, as we stand by the sea-side, and cast our eyes over the expanse of waters, we try to understand by what law it is that they are restrained from again rushing over the shores. In some places, as on the coast of Cornwall, we see a bold, rocky, and lofty boundary: but in others, the very reverse of this,—a sandy and

almost flat shore, with nothing apparently to stop the progress of the waves from overwhelming the land. And when we further reflect upon the numerous proofs which the land every where presents of having been once covered by the sea, which has left behind it innumerable vestiges of its effects upon the solid rocks, and upon the fossil remains of animals which these contain, we may well confess our ignorance of the means employed by God to prevent the same catastrophe as that of a universal deluge from occurring again.* Indeed the fact is so striking that the Divine Being himself employs it to chide the folly and to alarm the confidence of his ancient people: "Fear ye not me? saith the Lord; will ye not tremble at my presence, which have *placed the sand* for the bound of the sea, by a perpetual decree, that it cannot pass it; and though the waves thereof toss themselves, yet can they not prevail; though they roar, yet can they not

* Cornwall has generally been considered as a county containing no fossil remains. This idea is now, however, proved to be erroneous. The writer of this has several specimens in his possession, of shells embedded in an argillaceous limestone, worked in the parish of Southpetherwin, near Launceston, which establishes the fact that this district was once covered by the sea.

pass over it?" (Jer. v. 22.) Were a man to see the approach of the tide for the first time, he might well be alarmed. But those who have often witnessed this sight, and who know that the ebbing and flowing of the water is regulated by the moon's course, do not perhaps sufficiently reflect upon the wonderful train of natural causes which must have been put into operation by the hand of Providence to produce this effect. The return of the tide twice every day is not the less surprising because science teaches us to believe, that this is owing to the attractive influence which the body of the moon exerts upon the earth, and especially upon its great moveable fluid the ocean. For what a mysterious page of nature does this fact open when we thus behold ourselves linked as it were by an invisible chain to a distant world! How forcibly should this remind us of our mysterious connexion with the invisible world of spirits, which is continually drawing us towards it, and holding us fast by a firm and everlasting bond. Our close connexion with the moon may also remind us of the relation which subsists between all true believers, and that mystical body the Church of Christ to which they belong. The moon is the scriptural emblem* of that Church which holds all

* Sol. Song vi. 10.—Rev. xii. 1.

the faithful together by the holiest and most powerful ties. It is only by communion with this Church that the streams of public piety are kept continually flowing, and the blessings of religion are brought home to every door. True religion also, be it remembered, bears this further resemblance to the Sea, that though it is always flowing, and always full, it has its periodical tides, some of which rise higher than others. Twice every day at least, it pays its tribute of prayer and praise at the footstool of its Creator and Redeemer; and on the Lord's day, and at Sacramental seasons especially, it enters his Courts with the spring-tide offering of devotion; there paying its vows to the Most High, and offering the sacrifices of righteousness in all the beauty of holiness, with the same fulness of energy, with the same extraordinary flow of holy emotion that the Sea approaches the shores, and flows up to its highest point, when the moon and the sun exert their united influence upon its tides.

The Sea, in whatever light we view it, whether we watch the grandeur of its movements, analyze its contents, or survey its magnitude, will yield much matter for pleasing and serious contemplation. How astonishing is it that this stupendous mass should be thus ever kept in motion, and so strongly impregnated with salt,

and yet yield us food as devoid of saltness as any other animal production! Wisely, however, have these things been arranged, though we can understand but little of the marvellous process necessary to produce the result. Thus much we know, that without these qualities the ocean, instead of being a source of almost every blessing, would speedily putrify and become one wide reservoir of pestilence and death to all the globe. And in spiritual things is there not a similar analogy subsisting? For what would be the moral world without the salt of Christianity (Matt. xv. 13); without the motions of the blessed Spirit of all grace continually quickening, refreshing, stirring, agitating the whole naturally corrupt mass? But for these things, all its other advantages would have been in vain. It is the Gospel which alone supplies those mysterious but salutary principles, by which the great process of spiritual renovation is continually going on; and "a world that lieth in wickedness" is yet preserved till that day when, having answered all the divine purposes concerning it, "there shall be a new heaven and a new earth, and there shall be no more sea." (Rev. xxi. 1.)*

* Whether this remarkable property in the new earth, that there shall be no more sea, shall be effected by the means

If from these general reflections we proceed to take a glance at the inhabitants of the ocean, we shall discover that it is a world in itself, and as richly furnished as the land with innumerable varieties of plants and animals. These furnish the Naturalist with continual occupation, while he observes how well constructed their organs are to the element in which they live; how infinitely varied, and how full of beauty and curious contrivance. He who had never seen a fish would be almost incredulous of the existence of such creatures, so widely different is their organization from that of land animals. Arguing from the effects which an immersion for any considerable season under the water has upon the human frame, he would perhaps pronounce it to be impossible that any creatures should live there and multiply. But so wisely has the Creator fashioned these animals, that the water is to them as natural an element as the air is to us; but what is still more

which the theorists of the earth have prescribed, or by any other, time must discover; but it is evident from hence, that this new heaven and earth are not designed to take place till after the general judgment; for at the general judgment, (xx 13) "The sea gave up the dead which were in it." Many understand the expression figuratively, that there shall be no troubles or commotions in this new world!—*Bishop Newton on the Prophecies, vol. 2. p. 387.*

wonderful, though they live in their own element, they breathe air also, and by the peculiar construction of their gills, are enabled to take in the air with which the water is saturated, while at the same time the water is excluded. When we attentively consider the curious provision of their internal structure, and connect it with their external covering, we shall be still more deeply impressed with the peculiar adaptation of their bodies to the element in which they live and move and have their being. How beautifully have they been clothed by the Author of nature; not indeed with silks and furs, for this would be unsuitable to their situation, but with an armour of glittering scales, or plates, far more curious and more protective than that which was worn by the proud knights of old in fields of chivalry! Men have rivalled each other in their houses and castles, but how inferior have all these been in comparison with those inhabited by the Crab, the Oyster, the Tortoise, and all the shelly tribes. No wonder then that the book of Job should appeal to this part of the creation for some of the most striking proofs of his handy-work:—"Ask now..... and the fishes of the sea shall declare unto thee. Who knoweth not in all these, that the hand of the Lord hath wrought this?" (Job xii. 7.)

Fertility is another striking circumstance by which the tribes of the ocean are distinguished.* What can equal the prodigious numbers in which these multiply? Very suitable, indeed, is the reflection which Bishop Hall makes on this point. 'Here is an instance of thy liberality, O thou God of Providence! When thou didst pronounce thy benediction on the works of thine hand, thou didst distinguish the fish from the rest, and put an emphasis upon it; and while thou didst give a commission to other creatures to be fruitful and multiply, thou didst direct the waters to bring forth abundantly the moving creature that hath life.' (Gen. i. 20.)

On this subject the observations of an eminent Philosopher of the present day are well deserving our attention. 'Of fishes alone the varieties, as to conformation and endowments, are endless. Still more curious and anomalous, both in their external form and their internal economy, are the numerous orders of

* 'When I went to view the Port of Dieppe,' says the author of a celebrated work, 'they brought us a very fine cod. I was curious to count the eggs she contained; in order to which I took as many as weighed a drachm, and having three of us engaged to number them, and then weighed the whole, the aggregate sums produced were nine millions three hundred and forty-four eggs.'

living beings that occupy the lower divisions of the ani mal scale; some swimming in countless myriads near the surface; some dwelling in the inaccessible depths of the ocean; some attached to shells, or other solid structures, the productions of their own bodies, and which in process of time, form, by their accumulation, enormous submarine mountains, rising often from unfathomable depths to the surface. What sublime views of the magnificence of creation have been disclosed by the microscope, in the world of infinite minuteness, peopled by countless multitudes of atomic beings, which animate almost every fluid in nature? Of these a vast variety of species have been discovered; each animalcule being provided with spontaneous powers of motion, and giving unequivocal signs of individual vitality. The recent observations of Professor Ehrenberg, have brought to light the existence of *Monads*, which are not larger than the 24,000th part of an inch, and which are so thickly crowded in the fluid as to leave intervals not greater than their own diameter. Hence he has made the computation that each cubic line, which is nearly the bulk of a single drop, contains 500,000,000, of these Monads, a number which almost equals that of all the human beings existing on the

surface of the earth.' 'The same author observes that in some parts of the Greenland Seas, the minute species of Medusœ abound to such an extent that they give a visible tinge to the colour of the waves for hundreds of miles. The total number of these animals dispersed over that space, surpasses the utmost stretch of the imagination. In these situations a cubic foot of water taken indiscriminately, was found by Mr. Scoresby, to contain above 100,000 of these diminutive Medusœ.'*

But to return from these marvellous discoveries of modern times, it is worthy of remark that Christ chose several of his Apostles from the humble rank of fishermen, to denote perhaps, not so much the necessity of humility in his followers, as to intimate that the province of their labours, though apparently barren and dangerous, was not so in reality, but abundantly stocked with every spiritual product, and containing a richer harvest of the heirs of the kingdom of heaven than any former dispensation; a harvest which we may reasonably believe, only awaits the throwing forth of the gospel-net more extensively and faithfully by the

* Dr. Roget's Bridgewater Treatise, vol. 1. p. 13, and 194.

appointed fishers of men to make it universal, and to realize the splendid prophecy, "The earth shall be filled with the knowledge of the glory of the Lord, as the waters cover the sea." (Hab. ii. 14.) This prophecy is one which was no doubt intended to give the most enlarged conceptions of the blessings of universal Christianity. There is nothing which conveys so forcible an idea of vastness and depth combined, in other words of fulness as the waters of the ocean. Its waters are not only a covering which hide or invest the bottom of the abyss, but a covering far deeper than ever plummet yet sounded, and may for aught we can tell reach to the very centre of the globe. From this language we are therefore led to draw the inference, that the triumph of Christianity shall at length be no longer partial and superficial, as it has hitherto been, but that it will extend itself throughout the whole extent of humanity; exercising its mighty influence down from the lowest depths of degraded barbarism, up to the very climax of smooth and civilized refinement; reaching from the very heart and centre of our social and moral principles, and diffusing the happy effects of this knowledge of God's glory, as the deep blue waves of the boundless ocean are diffused, throughout the utmost range of the habitable globe.

Many, indeed, and vast are the ideas which a sight of the blue ocean may suggest; and he who can walk on its shores and cast his eye over the mighty expanse; he who can behold its rippling waves, or its foaming billows, without feeling a deep emotion from the source of all that is beautiful, awful and sublime rushing upon his soul, must be dead to all true sensibility. In the presence of such a scene, few will refuse to join with the Poet when he exclaims,—

> With wonder mark the moving wilderness of waves,
> From pole to pole through boundless space diffused,
> Magnificently dreadful! where at large
> Leviathan, with each inferior name
> Of sea-born kinds—ten thousand tribes—
> Find endless range for pasture and for sport.
>
> ——— Adoring own
> The hand Almighty, who its channell'd bed
> Immeasurable sunk, and poured abroad;
> Fenc'd with eternal mounds the fluid sphere,
> With every wind to waft large commerce on,
> Join pole to pole, consociate sever'd worlds,
> And link in bonds of intercourse and love
> Earth's universal family.

Here it is that we may contemplate the Great Governor of the Universe in some of the noblest of his attributes, and in some of the grandest of his dispensations. Here it is that he talks with man in the voice of the

roaring billows. How awful the sound that proclaims his majesty, and seems to say in the language of the Prophet, "I am the Lord thy God that divided the sea whose waves roared; the Lord of Hosts is his name!" With what rapidity do the thoughts take their flight to that day of Israel's redemption, when he, "whose way is in the sea, and whose footsteps are in the deep waters," manifested how easily he could make the most terrible of his works subservient to the safety and deliverance of his chosen! With what delight also may we look down upon the stormy waves, when we think that the Saviour of sinners walked upon them with the same ease as upon the solid rock; and that his voice of "Peace be still" calmed in a moment the fury of the roaring billows. What confidence therefore may we not place in him, who, with the same voice that stilled the tempest, will speak pardon, peace, and salvation to all his true disciples, when the floods of Almighty wrath shall again rush forth to overwhelm an unbelieving world! Grand also and solemn are the thoughts which come over us as we listen again to the murmur of the waves, and remember that it is compared by St. John to the voice of the whole redeemed multitude in heaven shouting forth

their combined Hallelujahs around the throne of God. (Rev. xix. 6.) Nay more than this,—that the voice of the Lord Jehovah himself, addressing itself to the ear of his inspired Prophet under the Old Testament, and his most favoured servant under the New, was "like the sound of many waters." (Ezek. xliii. 2, Rev. i. 15.) Scarcely less noble and majestic is the idea which St. Paul borrows from the same source; standing in thought upon the shore of a measureless ocean, he beholds there an image of the unfathomable mysteries of redeeming love, and exclaims in amazement, "O the depth of the riches both of the wisdom and knowledge of God! how unsearchable are his judgments, and his ways past finding out!" (Rom. xi. 33.)

But the reflections which here present themselves are not confined to the serious Christian, or to the naturalist. The man who possesses any reflection must be interested at beholding in the ocean, under its various aspects, a striking picture of the moral world in general, and of what is passing there. View it at certain seasons, and what can appear more tempting and inviting. But how often does the sailor realize the fatal truth of the Poet's description,—

'Fair laughs the morn, and soft the Zephyr blows
While proudly riding o'er the azure realm,
In gallant trim the gilded vessel goes;
Youth on the prow, and pleasure at the helm:
Regardless of the sweeping whirlwind's sway
That hush'd in grim repose, expects his evening prey.'

The sea is, indeed, a treacherous element, and when we contemplate the many dangers to which those who pass over its waves are exposed, we cannot wonder at the observation of Horace. 'Surely oak and threefold brass surrounded his heart, who first trusted a frail vessel to the merciless ocean. In vain has God in his wisdom divided the countries of the earth by the separating ocean, if nevertheless profane ships bound over waters, which ought not to be violated. The race of man, presumptous enough to dare every thing, rushes on through forbidden wickedness.'* These ideas of the Roman bard may, indeed, appear somewhat extravagant in the present day, when the art of navagation has become familiar to all nations and contributed so materially to lessen the dangers of the voyager. Nevertheless it is but still too apparent, that no discoveries of science and no nautical experience can avert the perils which will sometimes overtake man on his ocean path, even, per-

* Book 1. Ode 3.

haps, when he is least expecting them. Under the smiling and deceitful surface, how often are there concealed dangerous rocks and quicksands, on which the bark of the mariner is doomed to strike and suffer shipwreck! The sense of man's weakness is never perhaps more forcibly illustrated than when placed in sudden contrast with the forces of an angry sea let loose upon him. What is the proudest ship of war, with all her gallant crew, when placed amidst the fury of the breakers upon a coral reef? What but the mere sport of the watery element,—

> 'These are thy toys, and, as the snowy flake,
> They melt into thy yeast of waves, which mar
> Alike the Armada's pride, or spoils of Trafalgar.'

In each and in all of these general aspects, the sea has a moral counterpart in the world of the human heart. The experience of so many thousand years has not yet been able fully to unmask its treachery and hypocrisy. Many of the dangers around him the Christian has learnt to avoid, but there are others which take him by surprise and it is no uncommon spectacle to witness those who like Hymenaeus and Alexander of old, having held on the way of faith and a good conscience for a season, have afterwards forsaken it, and suffered

spiritual shipwreck. (1 Tim. i. 19.) Against this calamity neither height of station, nor weight of learning, nor the counsel of friends has been sufficient to protect such characters. They have been suddenly engulphed in that vortex of worldliness, or sensuality, where their weakness is fully exposed, and their ruin is almost inevitable.

Happily, however, instances of this signal defection from the truth, are perhaps as uncommon as the destruction of one of those "Lords of the deep," through the treacherous agency of a sunken rock, or a coral reef. But there are comparatively few whose course has not sometimes been threatened by a danger of this sort; though some there may be whose religious career rather resembles that of a rock fixed amidst the ocean surges, than a vessel sailing through these, with dangers above, beneath, and around. Such a character is beautifully described by one of the Greek Fathers, St. Gregory Nazianzum, 'He who honours and follows what is good for its own sake, inasmuch as he is a lover of stability, possesses this quality. He retains an intense desire of that which is excellent; thus presenting something godlike to view, and being able to say that which may be said of God, "I am not ano-

ther." Such a man will not be affected by any of the changes of removal, or relapse, by times, or circumstances; becoming a different person at different seasons, and taking as the polypedes do, the many colours of the rocks on which they congregate. But he will remain always the same; fixed amidst that which is unfixed; unturned amidst that which is turning; a rock, as I think, not in the least shaken amidst the attacks of winds and waves, but banquetting even upon the assaults which they make upon him.'*

How forcibly does such a state of religious stability contrast itself with that restlessness and love of change and novelty, which is the character of the present age! How significantly does St. Paul describe the antagonism of Christian unity, and growth in grace, when he speaks of those who are children tossed to and fro, or more literally agitated by the waves of a rough ocean, and blown or carried about with every wind of doctrine. (Ephes. iv. 14.)

The Sea, no less than the world in general, is to be regarded as exhibiting tokens of that disordered state of things, under which "the whole creation

*Orat 27. § 13.

groaneth and travaileth." Its hidden depths, like the world which man inhabits, are tenanted by a race that are far from being at peace one with another. Destruction and death meet not only on the visible surface of the great abyss, to track the footsteps of man, but extend their empire to all the tribes that people its waters. It abounds every where with creatures pursuing and devouring each other; the small and the weak becoming a prey to the great and powerful, while for both there is a grand destroyer—a Leviathan taking his pastime and seeking the perdition of all. View the Sea also when agitated by winds, and then how fitly does its commotion represent the restlessness and fury of godless men, impelled hither and thither by the breath of their wild and ungovernable passions. "The wicked are like the troubled sea, when it cannot rest, whose waters cast up mire and dirt. There is no peace, saith my God to the wicked." (Isai. lvii. 20, 21.) But thus it has ever been. Turbulence and strife are as natural to all the "Children of disobedience," as confusion and uproar are to the ocean, Hence the Psalmist, referring us to the power of him who stilleth the noise of the seas, speaks of "the tumult of the waves and the madness of the people" in one breath, to shew that they are the

same in character. So likewise St. Jude forcibly painting the character of the ungovernable schismatics of his own day, and of the last days, compares them most forcibly to "roaring waves of the sea foaming out their own shame." How full of sacred significance therefore is that sublime vision, in which St. John beholds heaven itself opened, and a victorious host, having the harps of God, standing upon "a sea of glass, mingled with fire," (Rev. xv. 2,) to celebrate their victory: as if to convey the strongest idea of the glorious tranquillity of their redeemed state when contrasted with their former scenes of tribulation and tumult, amidst the stormy billows of a changeable and perilous world!

A different series of ideas crowd upon us from the Sea, when we look at the ships that are crossing to and fro upon its ample bosom. How naturally does the Psalmist, while beholding a similar spectacle, observe, "There go the ships!" What a number of interesting reflections are included in these few words! *Ships* and the *Ocean* are the connecting links of that great chain of existence that runs round the globe. What unites the merchant of England and the merchant of India? What enables the poor man of our

own country to make the comforts and luxuries of distant lands his own? What furnishes the Christian Missionary with the means of carrying the glad tidings of salvation to the New Zealand Cannibals—the Antipodes of the British shores? What has brought about this connexion with the opposite regions of the earth's surface, but ships and the ocean?—Ships which display as much of the mastery of human art, as the ocean does of the wonders of the divine hand. Who then when he thus looks at the blessings enjoyed; at the combination of advantages thus resulting from the ocean; can refuse a tribute of praise and adoration to him who made the Sea for the same purpose as he made the land, to shew forth his glory, and to teach man his dependance upon him "who sitteth above the water flood, and remaineth a King for ever!"

Valuable, however, as the ocean is to man, and richly as he is indebted for it to the Lord of all, there is one thing, but for which its value would have been but little known. Without the magnet man would never have obtained that dominion over the seas, which Providence has assigned him in the present day. And viewing this fact in regard to the spiritual consequences that may now result from it, and which have

already resulted from it in the conversion of many a heathen, we can only look upon it as another proof of that divine superintendence in human affairs which nature and revelation abundantly declare. Looking also at the Sea as an emblem of the present world, we have reason to bless God that he has not left us to chance or skill in crossing the great ocean of human life. What the mariner's compass is to the seaman, the Bible is to the Christian; it is the heavenly nee dle by which he may steer his bark though the waves of time, and direct his course to a better land. Happy, thrice happy, is the man, who with Christ for his Pilot, and the holy gales of the Sprit to waft him onwards in his voyage, keeps his eye continually on this compass; for thus will he be enabled to navigate with skill and safety all the seas he may have to cross; to weather out all the storms of life, and at length, like some gallant ship that has long and nobly buffeted with the waves, to drop anchor in the haven of eternal blessedness.

NOVEMBER.

AUTUMN.—FALL OF THE LEAF.

Autumn ! soul-soothing season, thou who spreadest
Thy lavish feast for every living thing,
Around whose leaf-strewed path, as on thou treadest,
The year its dying odours loves to fling,
Their last faint fragrance sweetly scattering ;
O let thy influence, meek, majestic, holy,
So consciously around my spirit cling,
That its fix'd frame may be remote from folly,
Of sober thought combin'd with gentle melancholy.

The feelings of the Autumnal period which have been so happily depicted by one of our modern Poets in the above lines, must find a response in every heart which has been accustomed to hold communion with nature. This season is one which is peculiar to northern climates like our own, and serves to answer many beneficial purposes. It has been compared to the evening of life ; and if we extend it to the verge of winter, the comparison is a just one : for the beauty of spring, and the maturity of summer, have then left no-

thing behind them but scenes of decay and cheerless gloom, which are the best image of that declining age, when man is warned by every token, that his day is past, and his night is approaching. There is, however, the same wisdom and goodness apparent in the designs of Providence, whether we consider this season in itself, or contemplate that of which it affords a beautiful emblem. It is well known that twilight is highly beneficial, inasmuch as it affords to the organs of vision that gentle transition from light to darkness, but for which they must have suffered a sudden and daily shock in passing from the glare of a meridian sun, into midnight gloom. Similar is the benefit to the physical world in general by such a season as Autumn. We are not now plunged at once from the height of summer into the depths of winter, but we approach the latter gradually. In the declining temperature, our bodies are insensibly adapted to sustain the approaching frosts and snows; and as the charms of nature gently steal away from us, we become at length willing to exchange the bloom of summer, for the stern and hoary aspect of winter. Thus also it is with man. Old age does not come upon him at once. He descends as gently into the vale of years, as the sun sinks in the

heavens; and even then there is a twilight,—an autumn of his life which forewarns him by many peaceful but sure tokens, that the year of his mortal life is drawing near to its close.

That in all these transitions there is a benevolent design, it is impossible to doubt. "He who knoweth our frame, and remembereth that we are dust," has so regulated the world in which we live, that the very changes and uncertainties of which it is made up, are intended to promote a right discipline of the heart, by enforcing upon us the necessity of vigilance and a preparation for the future. Hence the present season is one which speaks to us with the voice of an inspired preacher, who, when he was fast sinking into the autumn of his life, left behind him the best warning of its vanity in that never to be forgotten precept, "Remember thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them. While the sun, or the light, or the moon, or the stars be not darkened, nor the clouds return after the rain." (Eccles. xi. 1, 2.)

One of the most affecting incidents of this season, is the departure of those feathered tribes which have

taken up their residence with us during the summer months. The woods are no longer enlivened with the merry note of the Cuckoo, or the mellow strains of the Black-cap. The Swallow has ceased his twittering on the chimney-top, and the Martin has forsaken his nest under the caves. All these, and many other of our guests during the warmer months, have left us to seek a happier climate. But in their places have arrived the Woodcock, the Snipe, and various species of wildfowl, which remind us that there are countries where winter has already begun his reign. It would be in vain for us to ask by what law these inhabitants of the air are directed in their migrations. The subject is one of the most obscure in natural history. Alluding to the instinct of the Stork, which is remarkably displayed on these occasions, well may the Poet ask,

> 'Who bid the stork, Columbus like explore,
> Heavens not his own, and worlds unknown before;
> Who calls the council, states the certain day,
> Who forms the phalanx, and who points the way?'

The discoveries of modern science leave us in the dark with respect to this wonderful faculty of instinct. The countries to and from which our birds of passage mi-

grate, is still involved in much doubt and mystery.* The reasons of their migration may more readily be explained. A supply of food for their young is probably the grand spring of this movement, as it is of

* A modern traveller tells us of the storks, that they pay an annual visit to Turkey; they arrive, he says, in vast numbers about the middle of March, and always in the night. They arrange their progress very systematically; they send forward their scouts, who make their appearance in a day or two before the grand army, and then return to give in their report; after which the whole body advances, and in its passage leaves during the night its detatchments to garrison the different towns and villages in their way. Early in October, they take their departure in the same manner, so that no one can know from whence they come or whither they go. They are known in the night time to leave all the villages, and have been seen in the air like immense clouds.—*Macgill's Travels in Turkey, Italy and Russia.*

With respect to the country of the Swallow, Buffon says, 'having had recourse to the most creditable travellers, I found them agreed as to the passage of Swallows over the Mediterranean.' 'And Mr. Adanson has positively assured me, that during his long stay at Senegal, he observed the long tailed Swallow, (the chimney Swallow) arrive constantly in Senegal about the time it leaves France, and as constantly to leave Senegal in the spring.'

Buffon, however, and Pennant inclined to the opinion that some Swallows might remain during the winter in a torpid state, and of this opinion was Gilbert White. See his History of Selborne, with remarks of the Editor.—*Constable's Miscellany, p. 78 and* 165.

the migrations of many other tribes of animated nature. In all these instances, however, we must conclude that nothing less than a Divine impulse guides and directs them throughout their long journeyings. Happy would it be for man if he were as forward to obey the dictates of reason and revelation! Happy would it be for him if he were as ready, as these birds of passage are, to anticipate the future, to catch the first ominous, though distant sound of winter's stormy footsteps, and to plume the wings of faith and hope, for a flight in due season to those peaceful shores, where there shall be a refuge till the cloudy and dark day be for ever passed away.

The present season is, indeed, one which has many objects to interest and awaken the attention of the observer of nature. As an ingenious Naturalist observes, 'Every season has its peculiar product, and is pleasing, or admirable, from causes that variously affect our different tempers and dispositions; but there are accompaniments in an autumnal morning's woodland walk, that call for all our notice and admiration. The peculiar feeling of the air, and the solemn grandeur of the scene around us, dispose the mind to contemplation and remark; there is a silence in which we

hear every thing, a beauty that will be observed. The stump of an old oak is a very landscape, with rugged Alpine steeps bursting through forests of verdant masses, with some pale, denuded, branchless lichen, like a scattered oak, creeping up the sides or crowning the summit. Rambling with unfettered grace, the tendrils of the briony festoon with its brilliant berries, green, yellow, red, the slender sprigs of the hazel, or the thorn; it ornaments their plainness, and receives a support its own feebleness denies. The agaric, with all its hues, it shades, its elegant variety of forms, expands its cone, sprinkled with the freshness of the morning, a transient fair, a child of decay, "that sprang up in a night and will perish in a night." The Squirrel, agile with life and timidity, gambolling round the root of an ancient beech, its base overgrown with the dewberry, blue with unsullied fruit, impeded in his frolic sports, half angry darts up the silvery stem again, to peep and wonder at the strange intruder on his harvest. The Jay springs up, and screaming tells of danger to her brood; the noisy tribe repeat the call, are hushed and leave us; the loud laugh of the woodpecker, joyous and vacant; the hammering of the nuthatch, cleaving its prize in the chink of some dry

bough; the humble-bee, torpid on the disc of the purple thistle, just lifts a limb to pray forbearance of injury, to ask for peace, and bid us

'Leave, leave him to repose.'

The cinquefoil, or the vetch, with one lingering flower, yet appears, and we note it from its loveliness. Spreading on the light foliage of the fern, dry and mature, the spider has fixed her toils, and motionless in the midst, watches her expected prey, every thread and mesh beaded with dew, trembling with the zephyrs breath; then falls the sere and yellow leaf, parting from its spray without a breeze tinkling in the boughs, and rustling scarce audibly along, rests at our feet, and tells us that we part too. All these are distinctive symbols of the season, marked in the silence and sobriety of the hour; and form, perhaps, a deeper impression on the mind, than any afforded by the verdant promises, the vivacities of spring, or the gay profuse luxuriance of summer.'*

This beautiful picture, which so strikingly exhibits some of the most striking features of this season, is intended rather to pourtray it as it appears in its

* Journal of a Naturalist, p. 113.

earlier, than in its later months. As we descend lower in the year the gloomy and sombre aspect of the landscape increases, till at length on entering the month of November, a feeling oppresses us like that which Pope ascribes to the unhappy inmate of a convent,—

> 'Black melancholy sits, and round her throws
> A death-like silence, and a dread repose;
> Her gloomy presence saddens all the scene,
> Shades every flower, and darkens every green:
> Deepens the murmur of the falling floods,
> And breathes a browner horror over the woods.'

It is with a sensation of this nature that we approach this great event of the season,

'THE FALL OF THE LEAF.'

There is no time of the year when nature puts on such an aspect of sadness, as when the trees have just lost their verdure and shed their leaves. We cannot help feeling a mournful sensation as we cast our eyes abroad over the hedges and woods lately clad in all the lovely tints of the seasons, but now stript of all their gay and cheerful clothing, and reduced as it were to the condition of a beggar who has only a few old scanty patches of rags to conceal his limbs and cover his nakedness. The paths of our gardens and fields are

strewn with the spoils of the tempest, with the wreck of that which was once fair as beauty in its spring, and bright as prosperity in its highest noon. Such a spectacle bids us be solemn. Nature is now celebrating the funeral of the past year, and consigning over the beautiful offspring of many months' vegetation to its wintry tomb. Surely there is no one of our readers who does not sympathize with us in the emotions which are due to the season, whose heart is not now in some degree awakened to serious reflections, or who does not behold in the present decay of the vegetable world, the type of his own mortality, and fully enter into the meaning of the Prophet's language, when he observes, "We all do fade as a leaf, and our iniquities like the wind have taken us away."

All nature is full of the types and shadows of spiritual things. "Day unto day uttereth speech, and night unto night sheweth wisdom." If man could only listen with a spiritual ear, and behold with a spiritual eye, he would never want instruction. Every page of the book of nature is a commentary on the book of divine truth, and reminds him that there is nothing unchangeable but God; nothing permanent and abiding but his promises; nothing that can at

last escape the hand of decay and death, but that wreath of incorruptible glory and victory in the heavenly mansions, which shall be gathered from the tree of life.

To the Christian Naturalist, as well as to the Christian Moralist, there are many ideas suggested by the fallen leaves which every where bestrew his path. He sees, in what these once were, another proof that the divine hand has made nothing in vain. These now withered, but once vital members of the trees around him, were wisely intended to answer the same purpose in the vegetable economy, as the lungs do in the human body, and as the external skin or covering does through which it perspires.* They remained however long enough to imbibe that portion of the atmospheric air which was necessary for the circulation of a due supply of sap, and the formation of the new

* The fall of the leaf commences for the most part with the colds of autumn, and is accelerated by the frosts of winter. But there are some trees which retain their leaves throughout the winter, though changed to a dull and dusky brown, and may be called ever-clothed trees, as the beech. And there are others that retain their verdure throughout the year, and are denominated evergreens, as the holly. The leaves of both sorts ultimately fall in the spring. Sir J. E. Smith considers that leaves are thrown off by a process similar to that of the slough-

buds for the coming year. And when this purpose was fully answered they did not fall at once: even then Providence took care that they should decay and wither on the trees themselves, rather than on the ground; for the putrefaction of so much vegetable matter in a green state on the surface of the earth might have been attended with serious consequences to the health of the human race. This therefore was prevented by a gradual decay, and the leaves were also kept long enough on the trees to provide for the safety of the next generation of buds, which were at that time in their infant state; thus affording not only a striking instance of design in the system of natural causes, but furnishing moreover a beautiful picture of the careful provision which is made for the constant renewal of the human race, notwithstanding the regular inroads of death and disease upon the generations of man in every age and country. "One generation,"

ing of diseased parts in the animal economy: and Keith observes, that if it is necessary to illustrate the fall of the leaf by any analogous process in the animal economy, it may be compared to that of the shedding of the antlers of the stag, or of the hair or feathers of other beasts and birds, which being like the leaves of plants, distinct and peculiar organs fall off and are renewed annually, but do not slough.—*Loudon's Encyclopædia of Gardening, p.* 196.

observes a sacred writer, "passeth away and another cometh, but the earth abideth continually." Surely nothing but a divine arrangement could have thus provided for a continual succession; and when Adam had lost his privilege of being immortal upon earth, have ordained a constant renewal of his posterity from age to age, till the end of all things. If, therefore, in the present season, we behold a monument of desolation, we see also a memorial of God's care and providence! We observe another instance of the mysterious manner in which death and life are linked together; how provision is made for things future, even from the destruction of things present; and how in the moral world, as in the natural, God does not suffer individuals or generations to pass away, till they have fulfilled their course, and their places are prepared to be supplied by others. Thus we learn in silence to adore the all-wise decrees of his Providence, who neither suffers a sparrow nor a leaf to fall to the ground without his knowledge; who is the same God, yesterday, to-day, and for ever, whether he permits his works to be ravaged by the hand of the destroyer, or whether he sends forth his creative Spirit and renews the face of the earth. (Psalm civ. 29—31.)

It is to be observed, however, that all trees do not share alike in the desolation that seems to overspread the face of nature at this season. Some are by habit evergreens, and retain a perennial verdure. And what a happy emblem do these afford us of the manner in which God preserves the graces and virtues of his people, still flourishing and green, as it were, when all around them is barren and desolate! Noah, Joseph, Daniel, and many besides perhaps, in every age of the world, have been thus suffered to stand as illustrious monuments of holiness; men perfect in their generation, whilst the people among whom they lived were grievously corrupt. It is to be remembered then, that those who would resemble them—who would flourish like the fir-tree, or the laurel, amidst the storms and frosts of winter—must have no fellowship with an evil and adulterous generation; for it is written, "The Lord hath set apart him that is godly for himself," and he only is pronounced "Blessed, who walketh not in the counsel of the ungodly, nor standeth in the way of sinners, nor sitteth in the seat of the scornful; whose delight is in the law of the Lord, and who meditates in his law day and night." To him, indeed, alone the promise belongs—"He shall be like a tree

planted by the rivers of water, that bringeth forth his fruit in his season; his leaf also shall not wither, and whatsoever he doeth shall prosper."

But for those who live without God in the world there is no consolation of this kind in store. Their condition is infinitely more mournful than any thing which is presented by the falling leaf, and the barren and naked branches of the trees of the forest. The forest will burst forth into fresh verdure under the genial influences of spring; but who can say that those hearts will ever flourish again in the beauty of holiness, which have long lain withering under the curse of sin and unbelief? He only, who knows all hearts, can determine to what lengths a sinner may go till he places himself beyond the hope of mercy: but no man may receive the grace of God in vain, and to every man the warning-voice is addressed, "Now also the axe is laid at the root of the tree; every tree therefore which bringeth not forth good fruit, is hewn down and cast into the fire." (Matt. iii. 10.)

'Spirit, proud spirit, ponder thy state,
If thine the leaf's lightness, not thine the leaf's fate;
It may flutter, and glisten, and wither, and die;
And heed not our pity, and ask not our sigh;

But for *thee*, the immortal, no winter may throw
Eternal repose on thy joy, and thy woe;
Thou must live—live for ever—in glory, or gloom,
Beyond the world's precincts—beyond the dark tomb;
Look to thyself then, ere past in hope's reign,
And looking and longing alike are in vain;
Lest thou deem it a bliss to have been, or to be,
But a fluttering leaf on yon blasted tree.'—*Jewsbury*.

DECEMBER.

WINTER.

'O Winter! ruler of th' inverted year,
I love thee, all unlovely as thou seem'st,
And dreaded as thou art!'

THUS sung a Poet of the last century, whose harp genius strung, and religion tuned in so noble and delightful a manner, as to make us forget, while we listen to his sweet and pious strains, the dreariness of the present season. So enamoured was Cowper with Winter, that he composed no less than three separate poems upon this subject. If any therefore of our

readers are disposed to imagine that this Poet chose but a barren theme to occupy his muse, we recommend them to read with attention his 'Winter Evening,' and the 'Winter Morning Walk,' as well as the 'Winter's Walk at Noon.' And when they have followed him in the series of meditations to which he and his lofty predecessor, Thomson, have struck the finest chords of poetic feeling and description, we think they will agree with us, that Winter may be as full of agreeable and profitable ideas as even summer itself. It is therefore much to be lamented, that so many persons, especially of the poorer class, are too apt, like the dormouse, to spend in a state of torpidity and slumber, so large a portion of those wintry hours, which would if rightly employed have been highly favourable to the purposes of mental cultivation, and religious improvement.

To the Christian Naturalist, Winter abounds with subjects of grand and interesting contemplation. What indeed can be more worthy of attention, than that beautiful fleecy mantle in which nature so often wraps herself during this season! Let us stand a moment, and watch the descending shower of snow! With what softness and grace does it fall, and repose upon the bosom of the earth! How lovely and pure the white-

ness of the flakes, and how curiously disposed in chrystals of various forms! And then, how marvellous the process by which water in its descent from the clouds is thus suddenly changed into a substance as entirely unlike rain, as rain is unlike air. This is one of the wonderful transformations of nature upon which many, perhaps, gaze heedlessly, because they have so often seen it before. Did they reflect a little, they would see that there is nothing in nature more remarkable, or more worthy of admiration, than this rapid conversion of water into snow or ice. Those, indeed, who from always living in the hot climates of the world, have never witnessed such a spectacle, can hardly be brought to believe in the possibility of it, even upon the strongest testimony. And we who have seen it so frequently, are almost as much in ignorance of the precise laws by which this change takes place, (and this too in the age of Chemistry,) as before that surprising science was discovered. Surely, then, this ignorance should teach us no small degree of humility and modesty in speaking of the things pertaining to the kingdom of God: for if we are at a loss to understand the secrets of a drop of frozen water, how can we presume to fathom the depths of God's Almighty

Providence; or to reason upon his character who is as wonderful in his counsels of grace, as he is excellent in the works of nature!

Winter is in truth one of those seasons in which the greatness of God as a Creator, and his Sovereign and Almighty power are strikingly shewn. Job, in his majestic description of the works of God, refers to this season in language of the most exalted kind. He places it in point of dignity next to the thunder and lightning; for after describing these most awful and impressive of all nature's wonders, he proceeds immediately to dilate on the terrors of Winter. The whole passage is eminently beautiful and poetical:— "God thundereth marvellously with his voice; great things doeth he, which we cannot comprehend. For he saith to the snow, Be thou on the earth; likewise to the small rain, and to the great rain of his strength. He sealeth up the hand of every man, that all men may know his work. Then the beasts go into dens, and remain in their places. Out of the south cometh the whirlwind; and cold out of the north. By the breath of God frost is given, and the breadth of the waters is straitened." (xxxvii. 5—10.) Well then, indeed, might Thomson, the Poet of the Seasons, imbibing

something of the spirit of the sacred lyrists, exclaim,—

> 'Vapours, and clouds, and storms,—Be these my theme,
> These! that exalt the soul to solemn thought,
> And heav'nly musing!'

'Heavenly musings' are perhaps better cherished by the gloom of winter, than by the sunshine of summer. When all nature is bright and fair, we are apt to make a heaven of earth; but when the elements frown upon us, and desolation seems to ride the blast; when the rattling hail, or drifting snow, compels the peasant to seek the friendly shelter of his home, then indeed it is hardly possible for us if we have any serious thoughts, not to indulge them freely. Our minds, sickened as it were with the gloomy aspect of all things around us, are in a condition to ascend to the contemplation of that God whose wrath, like a destroying hail, shall at last sweep away all man's "refuges of lies," and who has provided for his righteous family a secure retreat, where there are no storms—no Winter—but one eternal sunshine of bliss in the green pastures, beside the still waters of everflowing comfort.

It is the habit, indeed, of our nature too hastily to aspire to this tranquillity, forgetting that this is not our rest, "that it is polluted." The season of winter

is a type of that moral discipline through which the soul must pass before it can be the tenant of a region where all is bright, peaceful, and pure. If nature introduces us to the beauties of spring, not without first passing through the horrors of Winter, how can we suppose that the soul will be ordinarily fitted for the celestial mansions, without passing through that earthly ordeal of tribulation, which is intended to exalt and purify. The path to Canaan lay through a wilderness; nor is the road to Heaven now easier, whatever some may pretend. We are not to expect it to be scattered with roses, nor fanned with the breath of pleasant Zephyrs,—

> 'But first by many a stern and fiery blast,
> The world's rude furnace must thy blood refine;
> And many a gale of keenest woe be passed,
> Till every pulse beat true to airs divine.'

The evils which afflict us at this season, whatever they be, are sent to remind us of our fallen and sinful condition. They are intended to impress upon us, the great truth, that the world we live in, is one which, like ourselves, is still labouring under the consequences of man's original defection from the service of his maker.

When, therefore, we look abroad at this season, and behold the green earth swathed in a mantle of ice and snow, we may almost imagine that we see nature putting on this penitential robe of white, to express her sorrow for man's sin, and to remind him of the necessity of humbling himself in the presence of an offended Deity. Repentance for past sins, patience under present evils, and submission to the Divine chastisements—these are the lessons which are now forcibly taught us. Undoubtedly these duties are necessary at all times; but in a season when nature herself seems struggling with adversity, her children may be taught to lay them more seriously to heart, and learn amidst the hoarse murmurs of the leafless woods, the fitful wailings of the tempest, and the cold and pallid aspect of all around, to sympathize as it were with the groans and sighings of a parent in the hour of her extremity; and to wait with patient submission and humble hope the coming of that better season when Paradise with its perpetual spring-tide of joys shall be again restored to redeemed man, and the winter of this world's woes shall have passed away for ever.

Considered, however, with reference only to the present world, Winter is a season which if not always

agreeable is highly necessary, not only to make us love the spring the better when it comes, and to operate both upon the mind and body with a salutary effect, disposing the former to reflection, and bracing up the nerves of the latter which might otherwise be too much relaxed, but more especially by fitting and preparing the earth to bring forth fruit in due season. The Agriculturist knows well the value of Winter, in mellowing and softening the ground for his future crops; and the Naturalist sees also other advantages in this season, as the rest of nature after the severe exhaustion of summer. It may be justly considered, perhaps, as the Sabbath of the year, in the benefits of which man and animals, and the soul itself, all largely share. Even the snow acts the part of a benefactor; not by the salts it contains as was formerly supposed; but by enwrapping the earth, with a dense garment, which being a non-conductor of heat reserves to it a large portion of warmth that would otherwise pass off from it and be lost. Hence we find that the warmest Spring generally follows the most intense Winter; and in North America, Norway, Russia, and the Polar regions, where the snow always lies on the ground for a regular interval, this result is uniformly experienced, by a far

more steady and rapid developement of vegetation, than in our own climate.*

Winter, therefore, is to be considered as a necessary part of that system of providential arrangement under which we live; and though nature may now appear to be idle, she is, as an ingenious Naturalist observes, busily employed. 'Silent in her secret mansions, she is now preparing and compounding the verdure, the flowers, the nutriment of spring: and all the fruits, and glorious profusion of our summer year, are only the advance of what has been ordained and fabricated in these dull months.'

Many are the reflections to which the observance of these things will give birth in every mind that is truly awake to a sense of gratitude to God, who thus in the system of nature displays himself as the same benevolent Being, who, in the system of man's redemption, brings the greatest blessings out of the

* We give here a brief Calendar of the vegetable year of Lapland and Siberia,—

July 1	Snow gone.	August 2	Fruit ripe.
9	Fields quite green.	18	Snow, and from that time Ice and Snow, till the 23rd. of June when they begin to melt.
17	Plants at full growth.		
25	Ditto in flower.		

worst evils. The man who is disposed to murmur at the inclemency of the season, or at the loss of any of those comforts which belong to the other seasons of the year, should also reflect how far inferior his lot might have been, had it been cast in those more northern latitudes, where Winter almost divides the year, and reigns with a rigour which is here unknown. Let the discontented Englishman read the history of the Esquimaux, or of the inhabitants of Greenland, or Lapland, and he will then learn how to prize his own land, and his own temperate climate. Thanks be to God we never lose sight of the sun for months together as they do, and the comforts even of the poorest classes are wealth and affluence compared to theirs. They have moreover a moral winter resting upon their souls. "The Sun of Righteousness" has not yet arisen to cheer them with his beams, and the mountains of ice, and snow, which shut them out from the rest of mankind, are but an emblem of the awful and deathlike coldness which surround their prospects of another world. How inscrutable, then, are the ways of God, that he should thus have taken some and left others! "How past finding out" are the depths of that love which has poured the light and warmth of divine truth over

favoured Britain, and has permitted so many other of the tribes of the earth to walk on still in darkness, plunged, as it were, in all the horror of a polar winter.

Much, however, is it to be feared that Winter is a season but far too descriptive of the spiritual condition of many even in this land! What is the state of their hearts towards God? Are they not cold and barren as the season? What fruits do we see adorning their profession? Or rather, it may be asked, are they not like so many bare and leafless branches of the snow-clad forest, through which the gusts of pride and passion sweep with relentless fury, and upon which the dews and showers of gospel grace produce nothing but the cold icicles of vanity, sin and death? Are there not others whose profession is little better than a mantle of snow, beautiful and dazzling to the eye for a short time, but soon melting and vanishing away into its native element? And are there not to be found, in this as in every age of the church, those whose splendid career has resembled for a time that famous palace of ice built by the Russian Empress, and sumptuously adorned—a gorgeous fabric while it lasted, and surpassing in beauty many more substanial ones—but destined to play but a visionary part upon the stage for awhile,—

——— 'A scene
Of evanescent glory; once a stream,
And soon to slide into a stream again;
Treach'rous and false; it smil'd, and it was cold.'

What, indeed, is the hope of every ungodly professor of Christianity, but a delusion of this kind;—cold, but splendid mockery, having no reality of faith or good works, and vanishing into its native element, when exposed to the full light and splendor of God's law and testimony. How melancholy also is the thought that the most frightful image which a winter night can suggest, is but a faint picture of the wretchedness of that soul which is at length stopped in its career of iniquity by the hand of death! Poetry has presented us with striking descriptions of travellers perishing in a snow-storm, and the event is far from being uncommon at this season. We shudder with horror at Thomson's vivid representations of a catastrophe of this sort. But if it be, indeed, so dreadful for the traveller to be thus surrounded and trapped in the toils of death in the midst of a wide waste,—

'Far from the track and blest abode of man,
While round him night resistless closes fast;
And every tempest howling o'er his head,
Renders the savage wilderness more wild,'—

how infinitely more horrible for the sinner to find himself suddenly grasped by the terrors of the Almighty, with despair, his only portion, and that night of eternal anguish about to close upon him which will know no morning. While the guilty soul thus stands shivering on the brink of the eternal gulph, who can paint its agonies? In comparison of banishment from the presence of God, and from the light of his countenance, what are all the horrors of winter? In comparison of the tempest of his wrath, what is the deadliest blast which freezes up the current of blood in the veins of the traveller, shuts up sense,—

> 'And o'er his inmost vitals creeping cold,
> Lays him along the snows, a stiffen'd corse.'

Melancholy as these reflections are, they cannot but be salutary, if they lead us to "Seek the Lord while he may yet be found, to call upon him while he is near." As a topic of true consolation and rejoicing, let us remember that it was in the midst of a moral as well as natural winter that Jesus Christ appeared to give light to them that sit in darkness and the shadow of death. At the present season, therefore, when the event of His coming in great humility is every where commemorated, surely it must be the especial duty

of Christians to hail the advent of that still more glorious and solemn period, when to those who look for Him, "He shall appear the second time without sin unto salvation."*

In following the course of the seasons it has been the desire of the Christian Naturalist to direct the attention of his readers to some of those portions of the visible world, which might serve to impress them with a deep sense of the glory and goodness of the great Creator. Each, therefore, of the principal scenes of 'the rolling year,' and some of the grander spectacles of nature, have in their turn been presented to our thoughts, and for awhile detained our musings. We have taken a glance at the stern features of Winter;

* There is every reason to believe that this festival is observed at the season when the nativity really happened. St. Chrysostom preached a Homily, A. D. 386, in which he shews by several arguments that the 25th. of December was the true period. These are drawn from the general celebrity which this day had obtained as Christ's natal day from the earliest times, and from the clue which he supposes is furnished by Luke i. 26. The learned antiquary Selden, published a Treatise to prove the accuracy of this festival, and concludes that the 'yearly celebration or memory, continued from the oldest Christian times, has taught us the exact day of the month.'—Selden was one of the lay members of the Westminster Assembly of Divines, in 1643.

surveyed the characteristic beauties of Spring, Summer and Autumn; examined the most interesting of its Insect Tribes; meditated upon the wonders of the Starry Heavens; ascended the Cornish Tors; expatiated over the waves of the mighty Ocean; moralized upon the Falling Leaf; and now we are again arrived at that month which closes the calendar of nature, and shuts up the scenes of her revolving drama. What now remains but to drop the curtain over this brief display of the works of God, and to recommend to all those who have gone along with us in this brief survey, to seek for a more extensive knowledge, or a more habitual acquaintance with those interesting topics of enquiry, upon which the necessary limits here prescribed to the Christian Naturalist have only permitted him to suggest a few imperfect hints. Rapidly as we have passed over the field of our observations, it will be admitted that enough has been said to shew, that the more we look into the operations of nature, the greater cause we shall see, to admire and bless the divine hand by which they are all guided and directed. We cannot contemplate these with any attention, without being struck with the importance of attending to them more earnestly, and without feeling the force of St. Paul's

observation, Rom. i. 20, "The invisible things of God from the creation of the world, are understood by the things that are made, even his eternal power and Godhead." And this conclusion is most important, since it shews us that all "those are without excuse," who do not thus seek as far as they are able, to obtain a true and spiritual acquaintance with the being and perfections of the Almighty. Nature thus rightly studied, is and must be, the handmaid of grace. If Revelation is the temple, within which sits enthroned the God and Father of our Lord Jesus Christ, nature is the sublimest porch which leads to it; and entering here we ascend higher and higher, and discover more and more of the Omniscient mind, and benevolent will of him who has made nothing in vain.

In summing up, therefore, the importance of attending more to these things than is generally done, and with a view to point out the spiritual advantages that would result from a closer and better knowledge of nature, the Christian Naturalist would not take leave of his readers without suggesting to them the following observations.

1st. That an extensive acquaintance with the wonderful works of God will tend much to humble the

natural pride of the human heart. Beautiful, curious, and astonishing as are the facts which the natural history of the things around us presents to our notice, we shall find that each of them contains secrets which will perhaps never be unfolded to mortal eyes. The wisest have been obliged to confess their ignorance even of many of the most simple laws of nature. 'The great first cause, least understood,' still wraps up many things in clouds and darkness, to teach us our littleness: to stain the pride of all human glory, and to make us confess our folly, weakness, and guilt. It was not until the Almighty had spoken to Job from out of the whirlwind, and made all the glory of his works to pass before him in splendid review, that he exclaimed in the language of true penitence, "I have heard of thee by the hearing of the ear: but now mine eye seeth thee. Wherefore I abhor myself, and repent in dust and ashes." (Job xlii. 5, 6.) From a view therefore of the mysteries of the natural world, we shall be prepared in some measure to appreciate the mysteries of the spiritual. The wonders which the one unveils will leave us without excuse, if we refuse to admit that which is made known to us in the other. Thus, instead of rejecting the mystery of "God manifest in the flesh,"

or any other of the gospel doctrines because these contain things "hard to be understood," we shall rather esteem them as evidences that they have proceeded from the same God who has written the characters of mystery, no less than of beauty, over all his works.

Connecting also the history of Redemption with that world which forms the theatre of this great event, every object in it is invested with a charm, inasmuch as it is a precious memorial of the Son of God, and of the circumstances under which he came to visit us, in mercy. 'It is the glory of the world,' says a distinguished preacher, 'that he who formed it, dwelt on it; of the air, that he breathed in it; of the sun, that it shone upon him; of the ground, that it bore him; of the sea that he walked upon it; of the elements, that they nourished him; of the waters, that they refreshed him; of us men, that he lived and died among us, yea that he lived and died for us; that he assumed our flesh and blood, and carried it to the highest heavens, where it shines as the eternal wonder, and ornament of the creation of God.'

The progressive character of our knowledge of natural as well as of spiritual things, is another argument for the cultivation of both these kinds of knowledge.

In each of these studies, for which the human soul is so admirably fitted by its restless desire to look into all mysteries, there is yet much to be learnt, and much indeed that we can only hope to learn in eternity. As yet we see many things in the kingdom of nature as well as of grace, "through a glass darkly." Here we only now enjoy the limited privilege of Adam after the fall. To hold visible communion with the 'Divine Presence' is denied us, as it was to him after that event. In a world like that we live in to 'seek his bright appearances,' and to trace his footsteps, as they were at first perceived by our great Parent would be folly. Nevertheless, we have still the privilege, if we understand how to use it, of catching a glimpse of the Deity in his works and in his word. We may even now

> 'Gladly behold, though but his utmost skirts
> Of glory; and far off his steps adore.'

But a higher vision awaits us. And assuredly there is nothing to which the renewed mind looks forward with purer emotion, than to the anticipation of that day when in God's light it shall see light; and when as it respects all natural as well as spiritual difficulties, the thick film that overshadows and darkens our mental vision shall be purged away. And if in the midst of

this profound ignorance we are yet able to receive such a high degree of gratification from the revelations of God in his works and his word; if in the contemplation of the beautiful analogy that now subsists between them, we are able to find so many delightful sources of contemplation opened to us; what indeed shall be our enjoyment and satisfaction, when, in the highest sense of the sacred language, "the secrets of the Most High shall be with us, and by his light we shall be enabled to walk through all darkness!" To that high and holy fruition of glorified spirits, it must be our duty continually to look forward. For in the midst of so much that is lovely and captivating around us, there are still too many evidences of sin and wretchedness. The whole creation as yet groaneth, and travaileth, and waiteth for its redemption. (See Rom. viii. 18—23.) It is only therefore, by directing the thoughts to a world of boundless light, knowledge, and happiness, of which the present affords but a dim anticipation, that man can be assisted to learn how "all things work together for good to them that love God." And further, it is only by connecting both worlds in his view, that man can either understand his own place in the scale of being, or be led to seek after the glorious prize of

ERRATA.

Page 22, Read for a mansion o glory *of* glory.
— 24, For mere rudiment read *a* mere rudiment.
— 29, For berbiverous read *herbiverous*.
— 53, For here one read here *is* one.
— 71, For buzes read *buzzes*.
— 83, For colvolvol us read *convolvolus*.
— 92, For upper form read upper *four*.
— 97, Note. Read *seem* for seems.
— 97, For tops of cheese-wring read *top*.
— 131, For establish the act read *fact*.
— 139, The note refers to the expression *water out of his buckets*, not to the former clause.
— 182, For caves read *eaves*.

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